

# **Sonos, Inc.’s Motion *In Limine* No. 2**

## **EXHIBIT E**

**(Filed Under Seal)**

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UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN FRANCISCO DIVISION"

GOOGLE LLC,  
  
Plaintiff and Counter-defendant,  
  
v.  
  
SONOS, INC.,  
  
Defendant and Counter-claimant.

Case No. 3:20-cv-06754-WHA  
Related to Case No. 3:21-cv-07559-WHA

**REBUTTAL EXPERT REPORT OF  
DR. KEVIN C. ALMEROOTH**

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transmission frames to control speaker attributes such as speaker group, enabling or disabling a sub-woofer, and volume of the loudspeaker digitally.

\* \* \* \*

When digital audio is transmitted to a wireless speaker the speaker needs to reliably recover the data as a stream of digital audio samples and needs to generate an accurate digital audio sample rate clock to output the data. When transmitting to several wireless loudspeakers simultaneously, as is the case with stereo or six channel surround sound, the sample rate clocks for the loudspeakers must be accurately synchronized to the data and with each other. Small delays from one speaker to the next would compromise the stereo or surround sound imaging of the sound. Even worse, variable delays would cause sounds to appear to move around in space. This invention solves the audio sample rate synchronization problem by generating the audio sample rate clock directly from the RF receiver symbol rate clock. For an RF system with continuously streaming data transmission, as is the case with digital audio in this invention, this clock is highly accurate and is guaranteed to be synchronized between RF receivers in multiple loudspeakers because it is generated at a single location in the RF transmitter.

*Id.* at ¶ 11, 13.

471. Lindemann further discloses that a “Group Selection Switch” may be provided that “allows a loudspeaker to be assigned to one of many groups of loudspeakers,” and that there may be “status information contain[ing] commands to enable or disable a particular group of speakers” as well as “[a]nother status message [that] determines enabling of different speaker modes according to speaker group.” *Id.* at ¶¶ 64-66, FIG. 18 (illustrating an example of a “Group Selection Switch 1800”).

#### **XIV. VALIDITY OF THE '885 PATENT**

472. In his Opening Report, Dr. Schonfeld includes opinions, theories, and analysis regarding the alleged invalidity of Asserted Claim 1 of the '885 Patent. *See* Schonfeld Op. Report at ¶¶ 1, 6, 219-962. In fact, as explained elsewhere in this report, Dr. Schonfeld *only* provided an analysis of his cited references in the context of Asserted Claim 1 of the '885 Patent, and never provides any analysis of the Asserted Claims of the '966 Patent.

473. However, as noted above, the Court has already granted summary judgement in favor of Sonos on the issue of validity of the '885 Patent, and I understand that the validity of the '885 Patent is no longer at issue in this action. D.I. 382.

474. In view of the Court’s summary judgement ruling, I have not been asked by Sonos

1 to address Dr. Schonfeld's opinions regarding Asserted Claim 1 of the '885 Patent or to otherwise  
2 provide any opinions regarding the validity of the '885 Patent in this rebuttal report. However, I  
3 note that I did previously provide my opinions regarding the validity of the '885 Patent in both my  
4 May 19, 2022 reply declaration and my '885 Rebuttal Report that were submitted during the  
5 "patent showdown" phase of the case. Thus, to the extent that Dr. Schonfeld is permitted to offer  
6 any opinions regarding the validity of the '885 Patent at the upcoming trial, I hereby incorporate  
7 my May 19, 2022 reply declaration and my '885 Rebuttal Report, and I also expressly reserve the  
8 right to supplement my opinions and analyses to address any new opinions or analyses that Dr.  
9 Schonfeld is now offering regarding the alleged invalidity of the '885 Patent.

10 475. While Dr. Schonfeld only provided an analysis of his cited references in the context  
11 of Asserted Claim 1 of the '885 Patent, I have also made my best effort to discern what aspects of  
12 Dr. Schonfeld's analysis are applicable to the Asserted Claims of the '966 Patent, and I have  
13 addressed those aspects of Dr. Schonfeld's analysis below as part of my own analysis of the  
14 validity of to the Asserted Claims of the '966 Patent.

15 **XV. VALIDITY OF THE '966 PATENT**

16 **A. Sonos's 2005 System**

17 476. In his Opening Report, Dr. Schonfeld opines that each of the Asserted Claims of  
18 the '966 Patent is rendered obvious by a reference he calls the "Sonos System" in view of "the  
19 general knowledge of a POSITA, the Sonos Forums, Nourse, and Millington." *See* Schonfeld Op.  
20 Report at ¶¶ 963-1000. I disagree.

21 477. As an initial matter, Dr. Schonfeld provides little to no analysis with respect to his  
22 opinion that the Asserted Claims of the '966 Patent are rendered obvious based on the Sonos  
23 System in view of "the general knowledge of a POSITA, the Sonos Forums, Nourse, and  
24 Millington." *Id.* Instead, with respect to his invalidity "analysis" of the Asserted Claims of the  
25 '966 Patent, Dr. Schonfeld more or less just cites to his invalidity analysis of Asserted Claim 1 of  
26 the '885 Patent. *Id.* In so doing, Dr. Schonfeld has failed to even acknowledge the fact that the  
27 Asserted Claims of the '966 Patent use different claim language than Asserted Claim 1 of the '885  
28 Patent, let alone provide any explanation as to how his prior discussion of Squeezebox in the



1 context of Asserted Claim 1 of the '885 Patent applies to the Asserted Claims of the '966 Patent.  
2 For these reasons, it is my opinion that Dr. Schonfeld has failed to provide any basis or reasoning  
3 for his opinion that the Asserted Claims of the '966 patent are rendered obvious based on the Sonos  
4 System in view of “the general knowledge of a POSITA, the Sonos Forums, Nourse, and  
5 Millington.” *Id.*

6 478. Given Dr. Schoenfeld’s reliance on his prior discussion of the Sonos System in the  
7 context of Asserted Claim 1 of the '885 Patent, where appropriate, I have referred back my rebuttal  
8 analysis and opinions regarding Asserted Claim 1 of the '885 Patent from my '885 Rebuttal Report.  
9 However, unlike Dr. Schonfeld, I have also provided analysis in the context of the specific  
10 requirements of the Asserted Claims of the '966 Patent, as set forth below. To the extent Dr.  
11 Schonfeld is permitted to provide analysis and/or new opinions regarding the Asserted Claims of  
12 the '966 Patent, I reserve my right to address such analysis and/or opinions in a supplemental  
13 report and/or at trial.

14 479. Based on my analysis of the Asserted Claims of the '966 Patent and the cited  
15 references, I disagree with Dr. Schonfeld’s unsupported opinion that the Asserted Claims of the  
16 '966 patent are rendered obvious based on the Sonos System in view of “the general knowledge  
17 of a POSITA, the Sonos Forums, Nourse, and Millington.”

18 480. To begin, as explained below, it is my opinion that Sonos’s own 2005 system failed  
19 to disclose at least the following limitations of the Asserted Claims of the '966 Patent:

20 *Claims 1 and 9*

- 21 • A “zone scene” comprising a “predefined grouping of zone players . . . that are to  
22 be configured for synchronous playback of media when the . . . zone scene is  
23 invoked”;
- 24 • [1.4] / [1.5] and [9.1] / [9.2] “while serving as a controller for a networked media  
25 playback system comprising a first zone player and at least two other zone players,  
26 wherein the first zone player is operating in a standalone mode in which the first  
27 zone player is configured to play back media individually[,]” “receiving a first  
28 request to create a first zone scene comprising a first predefined grouping of zone  
players including at least the first zone player and a second zone player that are to  
be configured for synchronous playback of media when the first zone scene is  
invoked”;

- 1 • [1.4] / [1.6] and [9.1] / [9.3] “while serving as a controller for a networked media  
2 playback system comprising a first zone player and at least two other zone players,  
3 wherein the first zone player is operating in a standalone mode in which the first  
4 zone player is configured to play back media individually[,]” “based on the first  
5 request, i) causing creation of the first zone scene, ii) causing an indication of the  
6 first zone scene to be transmitted to the first zone player, and iii) causing storage of  
7 the first zone scene”;
- 8 • [1.4] / [1.7] and [9.1] / [9.4] “while serving as a controller for a networked media  
9 playback system comprising a first zone player and at least two other zone players,  
10 wherein the first zone player is operating in a standalone mode in which the first  
11 zone player is configured to play back media individually[,]” “receiving a second  
12 request to create a second zone scene comprising a second predefined grouping of  
13 zone players including at least the first zone player and a third zone player that are  
14 to be configured for synchronous playback of media when the first zone scene is  
15 invoked”;
- 16 • [1.4] / [1.8] and [9.1] / [9.5] “while serving as a controller for a networked media  
17 playback system comprising a first zone player and at least two other zone players,  
18 wherein the first zone player is operating in a standalone mode in which the first  
19 zone player is configured to play back media individually[,]” “based on the second  
20 request, i) causing creation of the second zone scene, ii) causing an indication of  
21 the second zone scene to be transmitted to the first zone player, and iii) causing  
22 storage of the second zone scene”;
- 23 • [1.4] / [1.9] and [9.1] / [9.6] “while serving as a controller for a networked media  
24 playback system comprising a first zone player and at least two other zone players,  
25 wherein the first zone player is operating in a standalone mode in which the first  
26 zone player is configured to play back media individually[,]” “displaying a  
27 representation of the first zone scene and a representation of the second zone  
28 scene”;
- [1.4] / [1.10] and [9.1] / [9.7] “while serving as a controller for a networked media  
playback system comprising a first zone player and at least two other zone players,  
wherein the first zone player is operating in a standalone mode in which the first  
zone player is configured to play back media individually[,]” and “while displaying  
the representation of the first zone scene and the representation of the second zone  
scene, receiving a third request to invoke the first zone scene”; and
- [1.11] and [9.8] “based on the third request, causing the first zone player to  
transition from operating in the standalone mode to operating in accordance with  
the first predefined grouping of zone players such that the first zone player is  
configured to coordinate with at least the second zone player to output media in  
synchrony with output of media by at least the second zone player”.

*Claims 2 and 10 (depending from 1 and 9)*

- [2.0] “The computing device of claim 1, further comprising program instructions  
stored on the non-transitory computer-readable medium that, when executed by the

one or more processors, cause the computing device to perform functions comprising”;

- [10.0] “The non-transitory computer-readable medium of claim 9, wherein the non-transitory computer-readable medium is also provisioned with program instructions stored on the non-transitory computer-readable medium that, when executed by the one or more processors, cause the computing device to perform functions comprising”;
- [2.1] and [10.1] “while the first zone player is configured to coordinate with at least the second zone player to play back media in synchrony with at least the second zone player, receiving a fourth request to invoke the second zone scene”; and
- [2.2] and [10.2] “while the first zone player is configured to coordinate with at least the second zone player to play back media in synchrony with at least the second zone player, receiving a fourth request to invoke the second zone scene”.

*Claims 3 and 11 (depending from 1 and 9)*

- [3.0] “The computing device of claim 1”;
- [11.0] “The non-transitory computer-readable medium of claim 9”;
- [3.1] and [11.1] “wherein causing storage of the first zone scene comprises causing storage of the first zone scene at a location other than the computing device”; and
- [3.2] and [11.2] “wherein causing storage of the second zone scene comprises causing storage of the second zone scene at the location other than the computing device”.

*Claims 4 and 12 (depending from 3 and 11)*

- [4.0] “The computing device of claim 3”;
- [12.0] “The non-transitory computer-readable medium of claim 11”;
- [4.1] and [12.1] “wherein the location other than the computing device comprises a zone player of the first predefined grouping of zone players”.

*Claims 6 and 14 (depending from 1 and 9)*

- [6.0] “The computing device of claim 1”;
- [14.0] “The non-transitory computer-readable medium of claim 9”;
- [6.1] and [14.1] “wherein the first predefined grouping of zone players does not include the third zone player”; and
- [6.2] and [14.2] “wherein the second predefined grouping of zone players does not include the second zone player”.

1 *Claims 8 and 16 (depending from 1 and 9)*

- 2 • [8.0] “The computing device of claim 1”;
- 3 • [16.0] “The non-transitory computer-readable medium of claim 9”;
- 4 • [8.1] and [16.1] “wherein receiving the first request comprises receiving a first set
- 5 of one or more inputs via a user interface of the computing device”;
- 6 • [8.2] and [16.2] “wherein receiving the second request comprises receiving a
- 7 second set of one or more inputs via the user interface”; and
- 8 • [8.3] and [16.3] “wherein receiving the third request comprises receiving a third set
- 9 of one or more inputs via the user interface”.

10 481. Additionally, it is my opinion that these limitations that were missing from Dr.  
11 Schonfeld’s “Sonos System” reference also would not have been obvious based on the Sonos  
12 System in view of “the general knowledge of a POSITA, the Sonos Forums, Nourse, and  
13 Millington.” This opinion is based in part on the fact that I have not seen any evidence showing  
14 an apparent reason why a POSITA in 2005-06 would have been motivated to modify the Sonos  
15 System and/or combine it with any of the references identified by Dr. Schonfeld in order to achieve  
16 the claimed inventions of the Asserted Claims of the ’966 Patent. I have also seen other objective,  
17 real-world evidence demonstrating that a POSITA in 2005-06 would not have found the Asserted  
18 Claims of the ’966 Patent to have been obvious, which stands in stark contrast to Dr. Schonfeld’s  
19 failure to support his obviousness opinions with any objective evidence.

20 482. My opinions regarding the non-obviousness of the Asserted Claims of the ’966  
21 Patent over the Sonos System in view of “the general knowledge of a POSITA, the Sonos Forums,  
22 Nourse, and Millington” are further supported by the fact that the Sonos System as well as various  
23 of the secondary references identified by Dr. Schonfeld were considered by U.S. Patent Office  
24 (“USPTO”) during prosecution of the ’966 Patent, which was then allowed to issue over these  
25 references. In particular:

- 26 • With respect to the “Sonos System” reference, the “Sonos Digital Music System User  
27 Guide, Version: 050801, Aug. 2005, 114 pages” was considered during prosecution  
28 of the ’966 Patent (*see* ’966 Patent at p. 15), and the specification of the ’966 Patent  
also describes the grouping mechanism utilized by Sonos’s multi-room audio system  
at the time when framing the drawbacks with the prior art that the “zone scene”

technology of the '966 Patent is intended to improve upon (*see* '966 Patent at 8:29-45);

- The Nourse patent as well as its prior publication were considered during prosecution of the '966 Patent (*see* '966 Patent at p. 4, 6);
- Several U.S. counterparts to the Millington Canadian patent relied upon by Dr. Schonfeld were considered during prosecution of the '966 Patent, including U.S. Pat. No. 8,234,395 (*see* '966 Patent at p. 5);
- With respect to Yamaha DME, various materials were considered during prosecution of the '966 Patent, including the "Yamaha DME Designer 3.5 user manual (Year 2004)" (*see* '966 Patent at p. 1, 17), "Yamaha DME 32 manual; copyright 2001" (*see* '966 Patent at p. 17), "Yamaha DME Designer 3.5 setup manual guide; copyright 2004, 16 pages" (*see* '966 Patent at p. 17), and "Yamaha DME Designer software manual guide; Copyright 2004, 482 pages" (*see* '966 Patent at p. 17)<sup>15</sup>;
- The Rajapakse patent as well as its prior publication were considered during prosecution of the '966 Patent (*see* '966 Patent at p. 5, 7); and
- The Lindemann publication was considered during prosecution of the '966 Patent (*see* '966 Patent at p. 7).

483. As I explained in my '885 Rebuttal Report, the Sonos System as well as various of the secondary references identified by Dr. Schonfeld were also considered by U.S. Patent Office during prosecution of the '885 Patent, which was then allowed to issue over these references.

484. Because the U.S. Patent Office considered these references during prosecution of the '966 Patent and then decided to issue the '966 Patent (including Asserted Claims 1, 2, 4, 6, 8, 9, 10, 12, 14, 16) over these references, I understand that Dr. Schonfeld has the added burden of overcoming the deference that is due to a qualified government agency, such as the USPTO, that is presumed to have properly done its job based on its expertise in interpreting references, its understanding of the level of ordinary skill in the art, and its duty to issue only valid patents.

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<sup>15</sup> During prosecution of the '966 Patent, the Examiner also acknowledged that "DME does not explicitly teach the inclusion, exclusion, etc. of particular enumerated first, second, etc. players of the set of available players to form, create, save, recall etc. a particular first, second, etc. grouping...." *See* July 5, 2019 Office Action at p. 4. Additionally, after considering Sonos's claim amendments and arguments for why Yamaha DME does not teach the claimed "zone scene" technology of the '966 Patent (*see* August 23, 2019 Response to Office Action), the Examiner allowed the '966 Patent (including Asserted Claims 1, 2, 4, 6, 8, 9, 10, 12, 14, 16) to issue over Yamaha DME and in the Reasons for Allowance, the Examiner stated that "the prior art," including "DME," "does not reasonably teach the subject matter of the independent claims" (*see* September 5, 2019 Notice of Allowance).

1 However, it is my opinion that Dr. Schonfeld failed to satisfy this added burden.<sup>16</sup>

2 485. In his Opening Report, Dr. Schonfeld states that the “[s]imply because the USPTO  
3 cited certain references during prosecution does not mean that these references were considered –  
4 the USPTO did not rely on any of these references as the basis for its rejections.” Schonfeld Op.  
5 Report at ¶ 327. I disagree. The Examiner did rely on Yamaha DME as a basis for his preliminary  
6 rejections, and while the Examiner of the USPTO did not rely on any of Dr. Schonfeld’s other  
7 cited references as a basis for his preliminary rejections, the references identified above were all  
8 considered by the Examiner as indicated by the Examiner’s statement that “ALL REFERENCES  
9 CONSIDERED EXCEPT WHERE LINED THROUGH,” followed by the Examiner’s signature.  
10 Thus, it is my understanding that the Examiner did consider the references identified above and  
11 determined that the claimed inventions of the ’966 Patent were novel and non-obvious over those  
12 references.

13 486. After suggesting that the USPTO did not consider the above-identified references,  
14 Dr. Schonfeld then states that “the USPTO did not have the benefit of the Court’s claim  
15 construction for ‘zone scene.’” Schonfeld Op. Report at ¶ 327. However, Dr. Schonfeld does not  
16 explain how that is related to whether or not the USPTO considered the references. I further note  
17 that I have not seen anything in the prosecution history that suggests that the USPTO interpreted  
18 the term “zone scene” in a manner that is contrary to the Court’s Order re Cross Motions for Partial  
19 Summary Judgment as to Claim 1 of the ’885 Patent (D.I. 309). Regardless, for the reasons  
20 explained below, it is my opinion that the USPTO’s decision to grant the ’966 Patent over the  
21 identified references was correct, because those references fail to anticipate or render obvious any  
22 Asserted Claim of the 966 Patent.

23 487. My opinions regarding Dr. Schonfeld’s “Sonos System” reference are further  
24

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25 <sup>16</sup> I further note that various Squeezebox materials were considered during prosecution of the  
26 related ’885 Patent, including “Squeezebox Network Music Player. Owner's Manual, Slim  
27 Devices, 2003,” “Squeezebox by Logitech. Owner's Guide, 2007,” “NewsRoom. Slim Devices  
28 Introduces Squeezebox, Nov. 18, 2003,” “Logitech Slimserver. Server for Logitech Squeezebox  
Players,” “Logitech/slimserver. Github,” and “Logitech/Slimserver. Github. Version 23 Release.  
May 19, 2002” (see ’885 Patent at p. 23-24).

1 supported by my discussions with Nick Millington, Sonos's director of software development in  
2 2005, who confirmed that Sonos's multi-room audio system as it existed in 2005-06 did not  
3 incorporate the "zone scene" technology that is described and claimed in the Asserted Claims of  
4 the '966 Patent.

5 488. In the sub-sections below, I have provided a summary of the bases for my opinions,  
6 as well as responses to Dr. Schonfeld's opinions.

7 **1. Asserted Claim 1 is Not Rendered Obvious Based on Sonos's 2005**  
8 **System**

9 489. For the reasons discussed below, in my opinion, Asserted Claim 1 of the '966 Patent  
10 is not rendered obvious by Sonos's 2005 system in view of the general knowledge of a POSITA,  
11 the Sonos Forums, Nourse, Millington, or any of the other secondary references identified by Dr.  
12 Schonfeld.

13 **i. Sonos's 2005 System Did Not Have "Zone Scenes" Functionality**

14 490. Asserted Claim 1 of the '966 Patent requires a "computing device" that is  
15 programmed with certain functional capability for creating and invoking a "zone scene," which is  
16 a user-customized, pre-saved group of "zone players" that is able to exist in an inactive state while  
17 remaining available for selection by a user so that the group can be invoked later on demand for  
18 synchronous playback. And more specifically, Asserted Claim 1 of the '966 Patent requires a  
19 "computing device" that is programmed with functional capability for creating multiple "zone  
20 scenes" having an overlapping "zone player" and then later invoking one of the "zone scenes."

21 491. As explained above, there are several key distinctions between a "zone scene" and  
22 the types of temporary, ad-hoc groups that could be created by a user in prior art systems such as  
23 Sonos's 2005 system.

24 492. First, a "zone scene" comprises a user-customized, pre-saved group of zone players  
25 that is able to exist in an inactive state while remaining available for selection by a user so that the  
26 group can be invoked later on demand for synchronous playback, whereas an ad-hoc group created  
27 using prior art grouping processes only existed for the limited period of time during which the  
28 group was activated and did not remain available for selection by a user after being deactivated.



1           493. Second, because a “zone scene” is able to exist in an inactive state, this provides a  
2 user with the ability to create a “zone scene” that includes a “zone player” but then still use that  
3 “zone player” for individual audio playback (or for playback as part of a different group) without  
4 having to remove the “zone player” from the “zone scene.” In other words, the existence of a  
5 “zone scene” comprising a user-customized, pre-saved group of “zone players” does not  
6 automatically restrict the functionality of those “zone players” such that they can only be used for  
7 grouped audio playback as part of that one particular group during the time that they are members  
8 of the group – instead, each such “zone player” can still be used for individual playback (or  
9 playback as part of some other group) while simultaneously remaining a member of the group that  
10 is predefined and pre-saved as part of the “zone scene.” In contrast, when a user created a new ad-  
11 hoc group of “zone players” using prior art grouping processes, the user was no longer able to use  
12 any such “zone player” for individual audio playback (or for playback as part of a different group)  
13 while the ad-hoc group was in existence because the ad-hoc group would be automatically  
14 activated for the entirety of its existence, and during that time, the functionality of the “zone  
15 players” in the ad-hoc group was restricted such that they could only be used for grouped audio  
16 playback. As such, once an ad-hoc group was created that included a “zone player” as a member,  
17 the only way to use that “zone player” for individual audio playback (or for playback as part of a  
18 different group) was to remove the “zone player” from the ad-hoc group, which would destroy the  
19 ad-hoc group such that it could not be selected again in the future.

20           494. Third, because a “zone scene” is able to exist in an inactive state, this allows a “zone  
21 player” to simultaneously be a member of multiple different user-customized, pre-saved groups  
22 that were in existence and available for selection by a user contemporaneously. For instance, a  
23 first “zone player” could simultaneously be a member of a first user-customized group that is  
24 predefined and pre-saved as part of a first “zone scene,” a second user-customized group that is  
25 predefined and pre-saved as part of a second “zone scene,” and so on, and then at any given time,  
26 a user can request that any given one of these co-existing, pre-saved groups be invoked on demand  
27 for synchronous playback (while the other unselected group(s) remain in existence). In contrast,  
28 a “zone player” was only capable of being of a member of one single ad-hoc group at any given



1 time, because a zone player's membership within one ad-hoc group was mutually exclusive to its  
2 ability to operate as a member of another ad-hoc group (or to play back audio on its own). Thus,  
3 once a "zone player" was a member of a first ad-hoc group, the only way that a user could create  
4 a second ad-hoc group that included the "zone player" as a member was by first removing the  
5 "zone player" from the first ad-hoc group (and thereby destroying the first ad-hoc group) – it was  
6 not possible for a "zone player" to be a member of multiple different ad-hoc groups that were in  
7 existence and available for selection by a user contemporaneously.

8 495. Fourth, the user-customized groups that are predefined and pre-saved as part of the  
9 "zone scenes" are persistent, which means that not only are they able to exist prior to being  
10 activated, but they also remain in existence after a user chooses to uninvoke a previously-invoked  
11 "zone scene" and thereby deactivate the group. In contrast, an ad-hoc group was temporary – it  
12 only exists during the limited time that the group was activated for playback, and once a user  
13 decided to deactivate the ad-hoc group, it was destroyed such that the user could not re-use the ad-  
14 hoc group in the future.

15 496. Because of these distinctions, the claimed technology for creating and invoking  
16 "zone scenes" provided users with a new way to group "zone players" together for synchronous  
17 playback in a networked multi-zone audio system, which was intended to improve upon certain  
18 drawbacks with both the existing process for grouping players in "conventional multi-zone audio  
19 systems" as well the existing process for grouping "zone players" together for synchronous  
20 playback that was being practiced by Sonos's own commercial system at the time of the invention  
21 of the '966 Patent in 2005. *See* '966 Patent at 1:30-2:24, 8:30-45. Indeed, as the Court recognized  
22 in its Order re Cross Motions for Partial Summary Judgment as to Claim 1 of the '885 Patent,  
23 "[t]he claimed ability to customize and save overlapping speaker groups and easily control group  
24 playback represents a clear technological improvement over the 'conventional multi-zone audio  
25 system,' which, as the specification explained, presents significant technological and physical  
26 obstacles to forming speaker groups." D.I. 309 12; *see also id.* at 3-5, 8, 13, 16.

27 497. Turning to Sonos's system as it existed in 2005, the evidence I have reviewed  
28 establishes that the controller(s) (e.g., a Sonos CR100) in Sonos's 2005 system did not have *any*

functional capability for creating or invoking a “zone scene” – let alone the required functional capability to cause the creation of two different, overlapping “zone scenes” that are both available for selection by a user and then later cause a selected one of the two different “zone scenes” to be invoked, as required by Asserted Claim 1 of the ’966 Patent.

498. As an initial matter, the Sonos UI Specification for “Zone Scenes” establishes that Sonos controllers in Sonos’s 2005 system did not have any functional capability for creating or invoking a “zone scene.” In particular, that Sonos UI Specification, which was created on December 20, 2005 and modified on December 21, 2005, includes the following “Introduction” section:

#### **1 Introduction**

The Zone Scene feature allows the user to arrange the zones into groups using one single command. This is similar to the current Party Mode setting that is available. However, the Zone Scene feature is much more flexible and powerful.

Currently in the Sonos UI, zone groups are created by manually linking zones one at a time until the desired zone grouping is reached.

For Example

Start with **Living Room**

- Link the Kitchen to the Living Room to make a group of **(Living Room + Kitchen)**
- Then link the Den to the **(Living Room + Kitchen)** to make a group of **(Living Room + Kitchen + Den)**

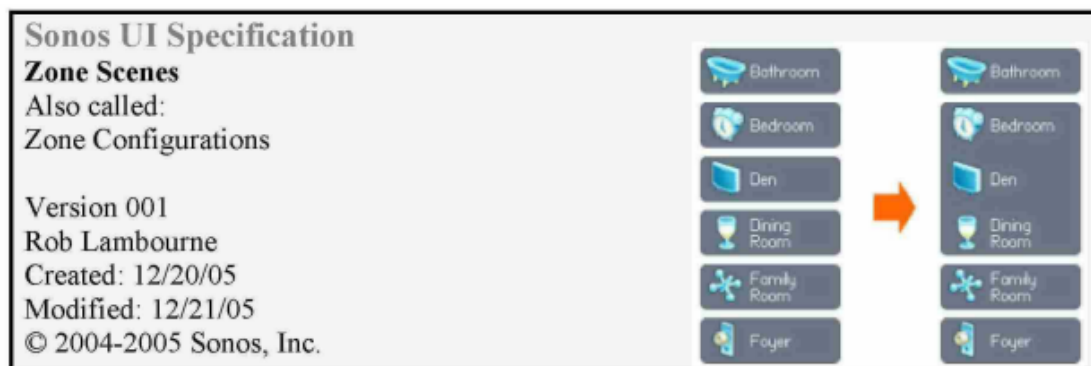
The Zone Scene feature would allow the user to create a group of **(Living Room + Kitchen + Den)** with one command.

SONOS-SVG2-00026839-58 at SONOS-SVG2-00026840; *see also* ‘407 Provisional, at App’x A, 1 (attaching another version of the Sonos UI Specification for “Zone Scenes”).

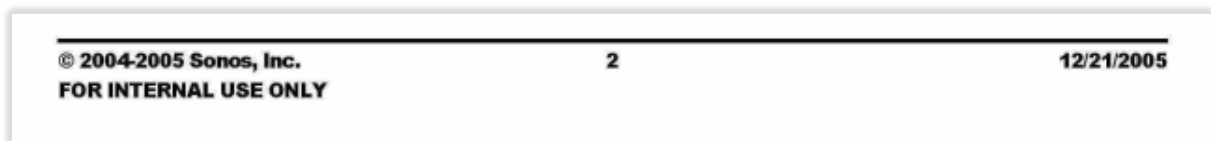
499. This “Introduction” section of Sonos’s UI specification for “Zone Scenes” confirms that the “current[.]” mechanism for grouping ZonePlayers in Sonos’s system in December 2005 was an ad-hoc grouping approach whereby “zone groups [were] created by manually linking zones one at a time until the desired zone grouping is reached.” *Id.* In turn, the Sonos UI specification for “Zone Scenes” goes on to introduce and describe the “zone scenes” technology that is described and claimed in the ’966 Patent as a new feature that would provide an alternative to the “current”

ad-hoc grouping approach being practiced by Sonos's system at the time. *Id.* (also noting that "the Zone Scene feature is much more flexible and powerful" than the "current Party Mode setting that is available"); *see also* '966 Patent at 8:30-61 (explaining that the "*current* mechanism" for "joining" zone players together for music playback" was an ad-hoc grouping process whereby a user "must start with a single zone and then manually link each zone to that zone" at the time the user wishes to use the group for synchronous audio playback, and then introducing and describing the "zone scenes" technology as a new feature that would provide an alternative to this "current mechanism" for grouping).

500. Several other objective aspects of this UI specification document confirm that Sonos's 2005 system did not have the features discussed in the UI specification and that this was a proposal for a feature addition to Sonos's 2005 system as it existed in December 2005. First, the document bears a version number ("Version 001"), which is something generally found on draft documents that change over time as features are modified:



501. Second, the footer bears the legend "FOR INTERNAL USE ONLY," which further confirms that this was a working draft of a confidential feature that was still under development and not yet released:



502. This document alone definitively establishes that Sonos controllers in Sonos's 2005 system did not have any functional capability for creating or invoking a "zone scene."

1           503. The “Sonos Digital Music System User Guide” dated April 2005 (“Sonos 2005  
2 User Guide”) also establishes that Sonos controllers in Sonos’s 2005 system did not have any  
3 functional capability for creating or invoking a “zone scene.” For instance, in the chapter on the  
4 Sonos “Desktop Controller Software” for Windows, the Sonos 2005 User Guide includes a section  
5 entitled “Zone groups” where it describes the grouping capabilities of Sonos’s 2005 system that  
6 existed at the time. That “Zone groups” section begins by explaining as follows:

7           A zone can be grouped together with any other zone(s) to form a zone group. This will  
8 cause all the zones in the zone group to play the same music. You can link or drop  
9 zones from a zone group while the music is playing. You can also link all the  
ZonePlayers in your house with one touch by selecting **All Zones-Party Mode**.

10 Sonos 2005 User Guide (Lambourne Dep. Exs. 1077-1078), at 3-11; *see also id.* at 5-8. To provide  
11 some additional context for this passage, my understanding is that Sonos’s 2005 system used  
12 “zones” as a way to logically identify ZonePlayers in Sonos’s 2005 system in a more user-friendly  
13 manner. In this respect, my understanding is that each ZonePlayer in Sonos’s 2005 system would  
14 have been identified in terms of a respective “zone,” which typically would have been a descriptor  
15 of a room or other area within a user’s listening environment. Thus, my understanding is that the  
16 discussion of grouping “zones” in the foregoing passage is a reference to grouping ZonePlayers in  
17 Sonos’s 2005 system. My understanding set forth above is based on my review of various evidence  
18 related to Sonos’s 2005 system as well as my discussion with Mr. Millington, and is further  
19 confirmed by the portion of the foregoing passage stating that “You can link all the **ZonePlayers**  
20 in your house with one touch by selecting **All Zone-Play Mode**.” *Id.* (emphasis added); 7/19/2022  
21 Discussion with Mr. Millington.

504. In turn, the “Zone groups” section describes the process for creating a “zone group” as follows:

**To link a zone to a zone group**

You can create a zone group first and then select music to play, or you can add a zone to a zone group where music is already playing.



**Note:** Any zones you link will automatically drop their current music queue and begin to play the music queue from the highlighted zone. You may sometimes want to save your music queue before linking a zone. See "To create a Sonos playlist" on page 3-17.

1. From the **Zones** pane, highlight the zone you want to link another zone or zone group to.
2. Choose one of the following options:
  - Click **Link Zone**.

Or,

- From the **Zones** menu, click **Link Zone**.



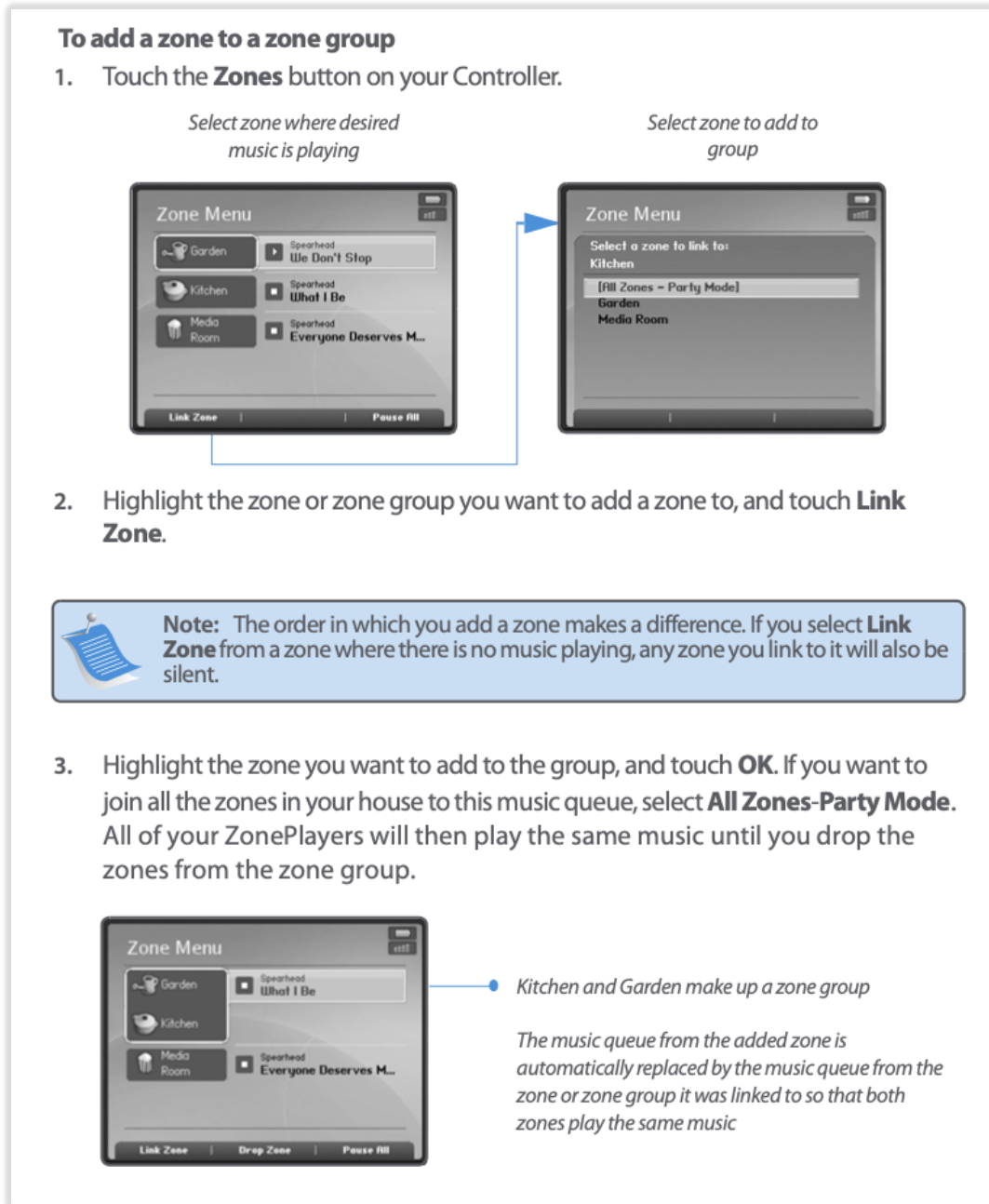
3. Select a zone to add to the group, and click **OK**. If you want to join all the zones in your house to this music queue, select **All Zones-Party Mode**. All of your ZonePlayers will then play the same music until you drop the zones from the zone group.



**Note:** The order in which you add a zone makes a difference. If you select **Link Zone** from a zone where there is no music playing, any zone you link to it will also be silent.

*Id.* at 3-12.

505. The Sonos 2005 User Guide also includes a similar “Zone groups” section in the chapter on the Sonos CR100 Controller, as shown below:



*Id.* at 5-9.

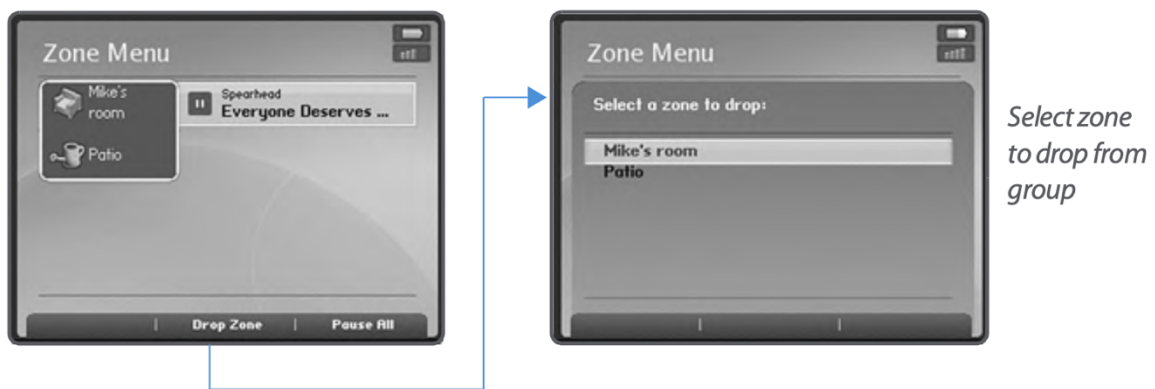
506. As demonstrated by the above excerpts from the Sonos 2005 User Guide, a user could create a new “zone group” using a Sonos controller by selecting a specific set of ZonePlayers (logically identified as zones) in a Sonos system to group together into the “zone group,” such as a Kitchen + Jack’s Bedroom group or a Garden + Kitchen group, and the act of creating this new

“zone group” would then “*cause all the zones in the zone group to play the same music.*” *Id.* at 3-11. Additionally, the Sonos 2005 User Guide notes that “[a]ny zones you link [into a zone group] *will automatically drop their current music queue and begin to play the music queue from the highlighted zone,*” and that if “there is no music playing” in the highlighted zone, then “any zone you link to it will also be silent.” *Id.* at 3-12, 5-8, 5-9.

507. The 2005 User Guide also explains that once a new “zone group” is formed and thereby activated, all of the ZonePlayers in the “zone group” “will then play the same music until you drop the zones from the zone group.” *Id.* at 5-9. The 2005 User Guide then goes on to describe the process “[t]o drop a room from your zone group” as follows:

#### To drop a room from your zone group

1. Touch the **Zones** button on your Controller.



2. Use the scroll wheel to highlight the zone group you want to change, and touch **Drop Zone**.
3. Highlight the zone you want to drop from the group, and touch **OK**. The room that's removed from the zone group stops playing music. The other zones in the zone group continue unaffected.

508. As demonstrated by the above excerpt from the Sonos 2005 User Guide, once a ZonePlayer is removed from a “zone group,” that ZonePlayer “stops playing music” in accordance with the “zone group” while “[t]he other zones in the zone group continue unaffected.” *Id.* at 5-10.



1           509. Based on the foregoing description, it is clear that a “zone group” created in this  
2 manner only existed temporarily during the limited time that the group was activated for playback,  
3 and as soon as a user wanted to use a ZonePlayer in an existing group for individual playback or  
4 wanted to create a new group that included one or more of the ZonePlayers in the existing group,  
5 the existing group would need to be destroyed by removing the one or more ZonePlayers that the  
6 user wanted to use for individual playback or wanted to include in a new “zone group.” 7/19/2022  
7 Discussion with Mr. Millington; 1/9/2023 Discussion with Mr. Lambourne. As a result, the only  
8 way a user could use a group having that same group membership again in the future was by re-  
9 creating a new temporary group that included the same members as the previously-existing group.  
10 *Id.* And as explained above, such a temporary, ad-hoc group that was automatically activated at  
11 the time of creation and then only remained in existence during the limited time it was activated is  
12 distinctly different from a “zone scene,” which requires a user-customized, pre-saved group of  
13 “zone players” that is able to exist in an inactive state while remaining available for selection by a  
14 user so that it can later be invoked on demand for synchronous playback.

15           510. Indeed, as an initial matter, a “zone group” of ZonePlayers was not a pre-saved  
16 group that was available to be *later invoked on demand* for synchronous playback at some time  
17 after the creation of the “zone group,” which is a fundamental requirement of the claimed “zone  
18 scenes.” *Id.* To the contrary, a “zone group” of ZonePlayers was a temporary, ad-hoc group that  
19 was automatically activated at the time it was created and then only remained in existence until  
20 the time that the “zone group” was deactivated, at which time the “zone group” would be  
21 automatically destroyed such that the “zone group” was not available to be *later invoked on*  
22 *demand* for synchronous playback. *Id.*

23           511. Further, a “zone group” of ZonePlayers was not a pre-saved group that was *able to*  
24 *exist in an inactive state* in which the pre-saved group was available for selection by a user but the  
25 “zone players” in the pre-saved group could still be used for individual audio playback (or as part  
26 of another group), which is another fundamental requirement of the claimed “zone scenes.” *Id.*  
27 To the contrary, a “zone group” of ZonePlayers was only able to exist in an active state during  
28 which time it was not possible for a user to use any of the ZonePlayers added to the “zone group”



1 for individual audio playback, and once a “zone group” was deactivated, it would be automatically  
2 destroyed such that it was no longer available for selection by a user. *Id.*

3 512. Further yet, a “zone group” of ZonePlayers was not capable of having a group  
4 member that was also a member of a different “zone group” available for selection by a user, which  
5 is another requirement of the claimed “zone scenes.” *Id.* To the contrary, a ZonePlayer could only  
6 be a member of one “zone group” that was in existence at any given time, and the only way a  
7 ZonePlayer in a first “zone group” could have been added to a second “zone group” was to destroy  
8 the first “zone group.” *Id.*

9 513. Lastly, there was no ability for a user to assign a thematic name to a “zone group,”  
10 which fails to meet the additional “according to a common theme” requirement of Google's  
11 proposed construction of a “zone scene,” as interpreted by the Court. *Id.*

12 514. Thus, for at least these reasons, it is my opinion that a “zone group” created by  
13 selecting a specific set of ZonePlayers in a Sonos system to group together into the “zone group”  
14 in an ad-hoc manner does not constitute a “zone scene.”

15 515. As demonstrated by the above excerpts from the Sonos 2005 User Guide, a user  
16 could also create a new “zone group” by selecting the “All Zones-Party Mode” option, which  
17 would then cause all of the ZonePlayers in a Sonos system to “play the same music until you drop  
18 the zones from the zone group.” Sonos 2005 User Guide (Lambourne Dep. Exs. 1077-1078), at  
19 3-12, 5-9. This “All Zones-Party Mode” option, which was hard-coded into the Sonos Desktop  
20 Controller software and the Sonos CR100 Controller firmware, provided an alternative way for a  
21 user to create a new “zone group” including all ZonePlayers in a Sonos system that avoided the  
22 need for the user to select each of the group members one at a time during the process of creating  
23 the “zone group.” 7/19/2022 Discussion with Mr. Millington; 1/9/2023 Discussion with Mr.  
24 Lambourne.

25 516. However, because the “All Zones-Party Mode” option was hard-coded into the  
26 Sonos Desktop Controller software and the Sonos CR100 Controller firmware, it was not a user-  
27 created, customized group that was predefined and pre-saved at a user’s request as part of an initial  
28 “setup” phase, which is a required aspect of the claimed “zone scenes.” *See* Case No. 20-6754,

1 D.I. 309 at 4 (the Court finding that Sonos's patented "zone scene" technology "'allows a *user* to  
2 *customize and save* multiple groups of smart speakers or other players . . . and then later 'activate  
3 a *customized* group, called a 'zone scene,' on demand), 8 (the Court noting that the "basic purpose  
4 of the invention . . . is to allow *users to pre-save customized speaker groups* and later 'invoke' the  
5 named group on demand"), 12 (the Court finding that "[t]he *claimed ability to customize and save*  
6 *overlapping speaker groups* and easily control group playback represents a clear technological  
7 improvement over the 'conventional multi-zone audio system,' which, as the specification  
8 explained, presents significant technological and physical obstacles to forming speaker groups").

9 517. Further, because the "All Zones-Party Mode" option was hard-coded into the Sonos  
10 Desktop Controller software and the Sonos CR100 Controller firmware – and thus was not a user-  
11 created, customized group that was predefined and pre-saved at a user's request as part of an initial  
12 "setup" phase – the "All Zones-Party Mode" option of Sonos's 2005 system also fails to meet  
13 several other limitations of Asserted Claim 1 of the '966 Patent. For instance, a Sonos controller  
14 in a Sonos system never received "a request to create" the "All Zones-Party Mode" option, never  
15 "caus[ed] creation of" the "All Zones-Party Mode" option, never "caus[ed] an indication of" the  
16 "All Zones-Party Mode" option to be transmitted to a ZonePlayer based on a "request to create"  
17 that option, and never "caus[ed] storage of" the "All Zones-Party Mode" option based on a "request  
18 to create" that option. 7/19/2022 Discussion with Mr. Millington; 1/9/2023 Discussion with Mr.  
19 Lambourne.

20 518. Further yet, there was no ability for a user to assign a thematic name to the "All  
21 Zones-Party Mode" option, which fails to meet the additional "according to a common theme"  
22 requirement of Google's proposed construction of a "zone scene," as interpreted by the Court.  
23 7/19/2022 Discussion with Mr. Millington; 1/9/2023 Discussion with Mr. Lambourne.

24 519. Thus, for at least these reasons, it is my opinion that the "All Zones-Party Mode"  
25 option provided by Sonos's 2005 system was merely just a different way to create an ad-hoc "zone  
26 group," and also does not constitute a "zone scene." *See also* SONOS-SVG2-00026839-58 at  
27 SONOS-SVG2-00026840 (explaining that the "Zone Scene feature" is "similar to the current Party  
28 Mode setting that is available" but that "*the Zone Scenes feature is much more flexible and*

1 *powerful*”).

2       520. I further note that the Sonos 2005 User Guide never uses the term “zone scenes” or  
3 otherwise describes any technology that would have enabled a user to create a user-customized,  
4 pre-saved group of ZonePlayers that was able to exist in an inactive state while remaining available  
5 for selection by a user so that it could later be invoked on demand for synchronous playback, which  
6 further confirms that the Sonos controllers in Sonos’s 2005 system did not have any functional  
7 capability for creating or invoking a “zone scene.”

8       521. I have also seen various other Sonos documents confirming that Sonos controllers  
9 in Sonos’s 2005 system did not have any functional capability for creating or invoking a “zone  
10 scene.” As one example, in an April 2005 email chain between Sonos employees Rob Lambourne  
11 (inventor of the ‘885 and ‘966 Patent) and Andrew Schulert, Mr. Schulert notes that “one of the  
12 problems with our system is we don’t have a way of permanently linking zones together.”  
13 SONOS-SVG2-00026888. In response, Mr. Lambourne proposes a feature that would “[a]llow a  
14 user to save Zone Profiles” that “would allow a user . . . to put their Zones into predefined  
15 groups...” *Id.* Mr. Schulert’s comments noting that the current Sonos system does not have a way  
16 to create “permanent” groups and Mr. Lambourne’s proposal to add a “predefined groups” feature  
17 in April 2005 further confirms to me that Sonos controllers in Sonos’s system at this time did not  
18 have any functional capability for creating or invoking a “zone scene.”

19       522. As another example, entries in Mr. Lambourne’s notebook dated October-  
20 November 2005 memorialize his ongoing work on the “zone scene” concept at this time, which  
21 further confirms that Sonos controllers in Sonos’s 2005 system did not have any functional  
22 capability for creating or invoking a “zone scene.” SONOS-SVG2-00026625 at 648 (showing Mr.  
23 Lambourne’s work on “permanent groupings?” and “group profiles”); *id.* at 653 (showing Mr.  
24 Lambourne’s work on “Perma Groups”); *id.* at 666 (showing Mr. Lambourne’s work on “Room  
25 Configurations” including “Morning Mode” and “Working Mode”); *id.* at 668 (showing Mr.  
26 Lambourne’s work on a proposal for how ZonePlayers might be selected for including in a “Zone  
27 groupings/Macro”).

28       523. As another example, in an email exchange dated July 6, 2006, Mr. Schulert asks

1 Mr. Lambourne if he “ha[s] a list of small ‘nice-to-have’ feature requests,” to which Mr.  
2 Lambourne responds with a list of features that did not exist in the then-current Sonos system but  
3 were requested, including noting that “there are some biggies like “Zone Scenes.” SONOS-SVG2-  
4 00026916. That Mr. Lambourne was referring to “zone scenes” as a requested feature in July 2006  
5 further confirms that Sonos controllers in Sonos’s system through this time period, including 2005,  
6 did not have any functional capability for creating or invoking a “zone scene.”

7 524. Additionally, I have reviewed the “v1.2-gold” snapshot of Sonos’s source code that  
8 Dr. Schonfeld appears to be relying on in his Opening Report, which I understand to be from July  
9 2005, and I did not see any source code modules that provided “zone scenes” capability, which  
10 also supports my opinion that Sonos controllers in Sonos’s 2005 system did not have any  
11 functional capability for creating or invoking a “zone scene.”

12 525. For completeness, I further note that the evidence summarized above likewise  
13 establishes that the ZonePlayers in Sonos’s 2005 system did not have any functional capability to  
14 be added to a “zone scene” that was created at the request of a user or to operate in accordance  
15 with “zone scene” that was invoked at the request of a user. Rather, the ZonePlayers in Sonos’s  
16 2005 system were only capable of being added to and operating in accordance with a temporary,  
17 ad-hoc “zone group,” which was not a “zone scene” for all of the reasons explained above.

18 526. Lastly, as noted above, my opinion that the Sonos controllers and ZonePlayers in  
19 Sonos’s 2005 system did not have the “zone scenes” capability that is described and claimed in  
20 the ’966 Patent is supported by conversations I have had with Nick Millington and Rob  
21 Lambourne, who confirmed that the Sonos controllers and ZonePlayers in Sonos’s 2005 system  
22 did not have the “zone scenes” capability that is described and claimed in the ’966 Patent. I  
23 understand that both Mr. Millington and Mr. Lambourne have been Sonos employees since 2003,  
24 and during the 2005-06 timeframe, Mr. Millington and Mr. Lambourne were heavily involved in  
25 designing and developing the technology that was being practiced by Sonos’s system as it existed  
26 in 2005.

27 527. Despite this clear evidence establishing that the Sonos controllers and ZonePlayers  
28 in Sonos’s 2005 system did not have any “zone scene” capability, Dr. Schonfeld nevertheless

1 opines that the “zone scene” limitations required by the Asserted Claims of the ’966 Patent were  
2 either disclosed or rendered obvious by the Sonos’s 2005 system. *See* Schonfeld Op. Report at ¶¶  
3 971-1000. However, I find Dr. Schonfeld’s opinions regarding Sonos’s 2005 system and the “zone  
4 scene” limitations of the Asserted Claims of the ’966 Patent to be flawed for several reasons.

5 528. As an initial matter, Dr. Schonfeld fails to set forth any basis or reasoning for his  
6 opinions regarding Sonos’s 2005 system and the “zone scene” limitations of the Asserted Claims  
7 of the ’966 Patent. Instead, Dr. Schonfeld merely refers back to his discussion of certain claim  
8 limitations of Asserted Claim 1 of the ’885 Patent and makes the following conclusory statement:

9 971. *See supra* ’885 claim 1 Limitation 1.6. Included in my incorporation by reference  
10 is my discussion of the “first zone scene” disclosure in, e.g., 1.6 I include in my incorporation by  
11 reference the discussion of the creation of the first zone scene, its composition, its synchronous  
12 playback configuration, and the ability of invocation of that zone scene.

13 However, the Asserted Claims of the ’966 Patent are directed to a different type of device than  
14 Asserted Claim 1 of the ’885 Patent (a “computing device” configured to “serv[e] as a controller”  
15 as opposed to a “zone player”), the Asserted Claims of the ’966 Patent use different claim language  
16 than Asserted Claim 1 of the ’885 Patent, and Dr. Schonfeld fails to provide any further explanation  
17 as to how his prior discussion of Sonos’s 2005 system in the context of the “zone scene” limitations  
18 of Asserted Claim 1 of the ’885 Patent applies to the “zone scene” limitations of the Asserted  
19 Claims of the ’966 Patent. In fact, Dr. Schonfeld fails to even state whether his opinion is that the  
20 “zone scene” limitations of the Asserted Claims of the ’966 Patent were actually *disclosed* by  
21 Sonos’s 2005 system versus whether his opinion is that the “zone scene” limitations of the Asserted  
22 Claims of the ’966 Patent were only *rendered obvious* by the Sonos’s 2005 system. For these  
23 reasons, I disagree that Dr. Schonfeld’s barebones discussion of the “zone scene” limitations of  
24 the ’966 Patent amounts to a detailed and complete statement of all opinions to be expressed and  
25 the basis and reasons therefor, which I understand to be the governing standard for expert reports,  
26 and that barebones discussion has prejudiced my ability to fully discern, assess, and respond to his  
27  
28

1 opinions regarding the “zone scene” limitations of the Asserted Claims of the ’966 Patent.<sup>17</sup>

2 529. Moreover, I have reviewed the section of Dr. Schonfeld’s Opening Report where  
3 he discusses Sonos’s 2005 system in the context of claim limitation 1.6 of Asserted Claim 1 of the  
4 ’885 Patent, and nothing in that section of Dr. Schonfeld’s Opening Report alters my opinion that  
5 Sonos’s 2005 system did not include the “zone scenes” capability required by the Asserted Claims  
6 of the ’966 Patent.

7 530. Indeed, Dr. Schonfeld’s theories and opinions regarding the alleged existence of  
8 “zone scenes” capability in Sonos’s 2005 system are all premised on Dr. Schonfeld’s incorrect  
9 interpretation of what is required to qualify a “zone scene,” which I previously discussed above,  
10 and are also premised on several inaccurate and misleading characterizations of Sonos’s 2005  
11 system functionality and the evidence related thereto.

12 531. For instance, at paragraph 338 of his Opening Report, Dr. Schonfeld states as  
13 follows:

14 The Sonos System allows a user to add a speaker to a group and send an indication  
15 of that addition. A user may, for example, use the desktop controller software to  
16 “link” zone players together to create a “zone scene,” under Sonos’s understanding  
17 of that term. Below, the example of “linking” the Kitchen Zone Player with the  
“Jack’s room” Zone Player is described. Another example of linking “Kitchen”  
with “[All Zones – Party Mode]” is also given.

18 Schonfeld Op. Report at ¶ 338 (citing to the Sonos 2005 User Guide at 3-12); *see also id.* at ¶ 336  
19 (stating that “[t]he ‘zone scene’ may be a group of speakers either defined by the user or predefined  
20 by the system, such as ‘Kitchen,’ ‘Dining Room,’ ‘Party Mode,’ etc.”), ¶ 345 (stating that “Sonos’s  
21 own prior art system discloses “zone scenes” because it allowed a user to group zones together  
22 ‘with any other zone’ to form a zone group.”) (citing to the Sonos 2005 User Guide at 5-9), ¶¶  
23 346-348 (citing SONOS-SVG2-00227363-399; SONOS-SVG2-00227400-406; SONOS-SVG2-  
24 00227407-413; SONOS-SVG2-00227414; SONOS-SVG2-00227415-417; SONOS-SVG2-  
25 00227422; SONOS-SVG2-00227427-429; SONOS-SVG2-00227437-438). However, this theory  
26 is based exclusively on the “Zone groups” section of the Sonos 2005 User Guide that I already

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27 <sup>17</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.



1 summarized above, and as I explained there, the ad-hoc “zone groups” that could be created in  
2 Sonos’s 2005 system were not “zone scenes” because they were not user-customized, pre-saved  
3 groups of “zone players” that were able to exist in an inactive state while remaining available for  
4 selection by a user so that they could be later invoked on demand for synchronous playback.

5 532. Turning to paragraph 340 of his Opening Report, Dr. Schonfeld states as follows:

6 Zone Players and therefore groups of Zone Players may be named or renamed per  
7 the user’s preference. Other groups such as “Party Mode” are preconfigured and  
8 also available to a user. The claims do not require the “zone scenes” to be “user  
selected.” Predefined groups, such as the “party mode” in the Sonos System,  
therefore meet this claim limitation.

9 Schonfeld Op. Report at ¶ 340 (citing to the Sonos 2005 User Guide at 5-23); *see also id.* at ¶ 349  
10 (stating that “[t]he user could also name individual speakers (zone players), in turn naming the  
11 zone groups” and that “[t]he previously-saved and named group, for example “Jack’s room +  
12 Kitchen” in the example below, can also be modified by removing Zone Players from the group”)  
13 (citing to the Sonos 2005 User Guide at 3-13), ¶ 350 (stating that “Zone Players and therefore  
14 groups of Zone Players may be named or renamed in accordance with the user’s preference” and  
15 that “while a user may potentially name the zone scene with a ‘non-thematic’ name, the Court has  
16 held that the capability to so name the zone scene is sufficient to meet the language of the claim”)  
17 (citing to the Sonos 2005 User Guide at 5-23), ¶ 351 (stating that “[o]ther groups such as ‘Party  
18 Mode’ are preconfigured and also available to the user”) (citing to the Sonos 2005 User Guide at  
19 3-12), ¶ 352 (stating that “[u]nder the Court’s Order, ‘Party Mode’ is a speaker group with a  
20 thematic name, which satisfies the claim ‘zone scene’ elements under the Court’s Order”).  
21 However, this theory is flawed for several reasons.

22 533. First, Dr. Schonfeld’s statement that “groups of Zone Players may be named or  
23 renamed per the user’s preference” is misleading and inaccurate. In reality, Sonos’s 2005 system  
24 only provided users with the capability to assign names to individual ZonePlayers, not to “zone  
25 groups.”

26 534. Second, while it is not clear, Dr. Schonfeld appears to be suggesting here that if a  
27 group of “zone players” could be named by a user, this would satisfy the requirements of a “zone  
28

1 scene.” I disagree – this suggestion ignores all of other key characteristics of a “zone scene.” In  
2 particular, as I explained above, a “zone scene” requires a user-customized, pre-saved group of  
3 “zone players” that is able to exist in an inactive state while remaining available for selection by a  
4 user so that it can later be invoked on demand for synchronous playback. Thus, even if Sonos’s  
5 2005 system did provide a user with the capability to name a “zone group” after it has been created,  
6 this naming capability would not transform the “zone group” into a “zone scene.”

7 535. Third, while it is not clear, Dr. Schonfeld also appears to be suggesting here that if  
8 a group of “zone players” is “preconfigured and also available to a user,” this would satisfy the  
9 requirements of a “zone scene.” Again, I disagree – a “zone scene” does not just require a  
10 “preconfigured” group that is “available to a user,” it requires a group of “zone players” that that  
11 is customized and pre-saved by a user during an initial “setup” phase that is carried out using a  
12 controller device . *See* D.I. 309 at 4-5, 8, 12, 13, 16. Thus, even accepting Dr. Schonfeld’s  
13 characterization that the “All Zones-Party Mode” option provided by Sonos’s 2005 system was a  
14 “preconfigured” group that was “available to a user,” this does not satisfy the requirements of a  
15 “zone scene.”

16 536. Fourth, Dr. Schonfeld’s statement that “[t]he claims do not require the zone scene  
17 to be ‘user selected’” is incorrect. *See* Schonfeld Op. Report at ¶ 340. As an initial matter, this  
18 statement appears in Dr. Schonfeld’s analysis of Asserted Claim 1 of the ’885 Patent and it is not  
19 clear whether Dr. Schonfeld intends for this statement to be applicable to the Asserted Claims of  
20 the ’966 Patent, which highlights the problems with Dr. Schonfeld’s failure to separately analyze  
21 the Asserted Claims of the ’966 Patent. Moreover, this statement is contrary to the Court’s  
22 repeated acknowledgment that a “zone scene” constitutes a group that is “customized” and “pre-  
23 save[d]” by a “user,” as well as the requirement of Asserted Claim 1 of the ’966 Patent that a “zone  
24 scene” is created based on a “request to create a ... zone scene” that is received by the “computing  
25 device” while it is “serving as a controller” – which a POSITA would understand to be a *user*  
26 request.

27 537. Fifth, Dr. Schonfeld’s statement that “[o]ther groups such as ‘Party Mode’ are  
28 preconfigured and also available to a user” appears to suggest that there were multiple different



1 “preconfigured” groups available for selection in Sonos’s 2005 system, which is not correct. The  
2 only group option available in Sonos’s 2005 system that could even possibly be characterized as a  
3 “preconfigured” group was the “All Zones-Party Mode” option that was hard-coded into the Sonos  
4 Desktop Controller software and the Sonos CR100 Controller firmware. However, this hard-coded  
5 “All Zones-Party Mode” option merely provided a different way to create a “zone group,” and  
6 does not meet the requirements of a “zone scene” for the reasons I have already explained above.

7 538. Turning next to paragraph 343 of his Opening Report, Dr. Schonfeld states as  
8 follows:

9 Sonos has also provided documentation showing that “zone scenes” were included  
10 in the Sonos System. For example, Mr. Lambourne testified that “party mode” was  
11 a “zone scene.” Lambourne Dep. Tr. at 63:8-13 (“Q. The Party Mode setting is a  
12 Zone Scene; right? THE WITNESS: Yeah. I think I describe a Party Mode as an  
13 example of a Zone Scene that can be set up, created.”) (objection omitted); 48:13-  
14 22 (“Q. Below the macros, in parenthesis, room configurations, there’s a box with  
15 three entries. One says “party mode,” one says “morning mode,” and the final says  
16 “working mode.” Do you see that? A Yes. Q. Were those examples of zone scenes?  
17 A Yes. Q. How do you know? A. Because I designed it.”).

18 Schonfeld Op. Report at ¶ 343 (also citing to Lambourne Dep. Ex. 1097 at 42). However, this this  
19 theory is premised on a misleading and inaccurate characterization of Mr. Lambourne’s testimony  
20 and documents.

21 539. Contrary to the Dr. Schonfeld’s statement, the “Party Mode” that Mr. Lambourne  
22 was describing here in this cited deposition testimony was not the same thing as the “All Zones-  
23 Party Mode” option that was hard-coded into the Sonos Desktop Controller software and the Sonos  
24 CR100 Controller firmware in Sonos’s 2005 system. Rather, what Mr. Lambourne was describing  
25 in this cited deposition testimony was a “zone scene” named “Party Mode” comprising a group  
26 that was customized and pre-saved by a user during an initial “setup” phase carried out using a  
27 Sonos controller. In fact, Mr. Lambourne specifically noted this distinction on several occasions  
28 during his deposition, but for some reason Dr. Schonfeld choose not to mention this in his report.  
*See, e.g.,* 6/6/2022 R. Lambourne Dep. Tr. at 62:13-63:13, 66:20-68:4, 74:21-75:5. In any event,  
this distinction is critical – while Sonos’s 2005 system did provide a user with an “All Zones-Party  
Mode” option that was hard-coded into the Sonos Desktop Controller software and Sonos CR100

1 Controller firmware, the Sonos's 2005 system did not include the later-developed "zone scene"  
2 technology that would have provided a user with the ability to use a controller device to create a  
3 "zone scene" named "Party Mode" comprising a user-customized, pre-saved group of "zone  
4 players" that were added by the user via the controller device, which was designed to be a "much  
5 more flexible and powerful" feature than the hard-coded "All Zones-Party Mode" option. *See*  
6 SONOS-SVG2-00026839-58 at SONOS-SVG2-00026840.

7 540. Along similar lines, the lone document that Dr. Schonfeld cites in support of this  
8 paragraph is a single page out of Mr. Lambourne's sketchbook where he had sketched out how a  
9 user could use the "zone scenes" technology he had begun to design to create a "zone scene" named  
10 "Party Mode," but again, this user-customized "zone scene" named "Party Mode" was distinctly  
11 different from the "All Zones-Party Mode" option that was hard-coded into the Sonos Desktop  
12 Controller software and the Sonos CR100 Controller firmware in Sonos's 2005 system. *See*  
13 SONOS-SVG2-00026625-751 at SONOS-SVG2-00026666.

14 541. Turning next to paragraph 344 of his Opening Report, Dr. Schonfeld states as  
15 follows:

16 Sonos has also argued at times that a group must either be saved or named for a  
17 group to be considered a zone scene. As described above, however, groups that the  
18 user creates and groups that the Sonos System creates, such as Party Mode, are  
19 saved. A user can, for example, play to a particular group, pause or stop playback  
20 to that group, and restart or play new music to that group later. Party Mode is  
21 another group that is constantly accessible to the user. And a user may name Zone  
22 Players, which when grouped together take on a concatenated name. As such, a user  
23 can create a group with a particular name. Each of these features are discussed  
24 *supra* e.g., Section X.

25 Schonfeld Op. Report at ¶ 344. However, this theory is flawed for several reasons.

26 542. First, as in paragraph 344 of his Opening Report, Dr. Schonfeld appears to be  
27 suggesting here that if a group of "zone players" could be named by a user, this would satisfy the  
28 requirements of a "zone scene." I disagree for the reasons I already explained above.

543. Second, Dr. Schonfeld's appears to be suggesting here that an ad-hoc "zone group"  
of ZonePlayer on Sonos's 2005 system was "saved" in the same way that a "zone scene" is saved.  
Again, I disagree. As I explained above, a "zone scene" comprises a predefined group of "zone

1 players” that is saved at a user’s request in a *persistent* manner that is not dependent on the  
2 activation state of the group so that it remains in existence and is available for selection by a user  
3 even during times when the group is in an inactive state, which is what enables the group to be  
4 later invoked on demand for synchronous playback. The ad-hoc “zone groups” in Sonos’s 2005  
5 system were not saved in this way. Rather, those ad-hoc “zone groups” were only saved  
6 temporarily during the limited time that the “zone groups” were activated, and the “All Zones-  
7 Party Mode” option was hard-coded into the Sonos Desktop Controller software and the Sonos  
8 CR100 Controller firmware rather than being saved at a user’s request as part of an initial “setup”  
9 phase.

10 544. Third, Dr. Schonfeld’s appears to be suggesting here that because the “All Zones-  
11 Party Mode” option was “constantly accessible to the user,” this satisfies the requirements of a  
12 “zone scene.” Yet again, I disagree – this just appears to be a different way to say that the “All  
13 Zones-Party Mode” option was hard-coded into the Sonos Desktop Controller software and the  
14 Sonos CR100 Controller firmware, and for all of the reasons I have previously explained, a hard-  
15 coded option for creating an ad-hoc group does not meet the requirements of a “zone scene.”

16 545. Turning next to paragraphs 345-352 of his Opening Report, Dr. Schonfeld largely  
17 just repackages and/or repeats the same talking points regarding the ad-hoc “zone groups” and the  
18 “All Zones-Party Mode” option of Sonos’s 2005 system, which rely on Dr. Schonfeld’s incorrect  
19 interpretation of what is required to qualify as a “zone scene” as well as his inaccurate and  
20 misleading characterizations of Sonos’s 2005 system functionality and thus fail for all of the  
21 reasons that I have already explained.

22 546. Turning lastly to paragraphs 353-357 of his Opening Report, Dr. Schonfeld  
23 describes and cites to various source code that was involved in the process for forming an ad-hoc  
24 “zone group” in Sonos’s 2005 system. *See* Schonfeld Op. Report at ¶¶ 353-357. However, an ad-  
25 hoc “zone group” is not a “zone scene” for all of the reasons I explained above, and the cited  
26 source code does not otherwise encode any functional capability for creating or invoking a “zone  
27 scene,” which is not surprising given all of the other evidence showing that Sonos’s 2005 system  
28 did not include any “zone scenes” capability. .

1           547. Turning to the additional requirement 966 that the claimed “computing device” be  
2 programmed with functional capability for causing the creation of two overlapping “zone scenes”  
3 that co-exist with one another and are both available for selection by a user at the same time, while  
4 it is not entirely clear, Dr. Schonfeld appears to be offering an opinion that Sonos’s 2005 system  
5 met this requirement as well.

6           548. For instance, at paragraphs 374-380, Dr. Schonfeld appears to be offering an  
7 opinion that Sonos’s 2005 system met this requirement based on the fact that a user could remove  
8 a ZonePlayer from a first “zone group” and then add the ZonePlayer to a second “zone group.” I  
9 disagree. In addition to the fact that these “zone groups” are not the claimed “zone scenes” for the  
10 reasons I explained above, this scenario also does not meet the additional requirement that there  
11 be two overlapping groups that co-exist with one another and are both available for selection by a  
12 user at the same time. *See* Schonfeld Op. Report at ¶¶ 374-380. To the contrary, the two “zone  
13 groups” in this scenario would have never existed at the same time – they would have been  
14 mutually exclusive of one another.

15           549. At paragraphs 374-380, Dr. Schonfeld also appears to be offering an opinion that  
16 Sonos’s 2005 system met this requirement based on the fact that a user could add a ZonePlayer to  
17 a “zone group” while the hard-coded “Party Mode-All Zones” option was available to a user. *See*  
18 Schonfeld Op. Report at ¶¶ 374-380. Again, I disagree – neither this “zone group” nor the hard-  
19 coded “Party Mode-All Zones” option amounts to a “zone scene” for the reasons I explained above.

20           550. At paragraph 381, Dr. Schonfeld also states as follows:  
21           Sonos allows users to wire speakers to the Zone Players in multiple configurations  
22           due to the wiring options included with each Zone Player. Accordingly, any Zone  
23           Player may be connected to speakers in the same room, different rooms, or even  
24           speakers connected to different Zone Players, allowing for freedom for the user to  
25           create multi-room and overlapping speaker setups, as Sonos encouraged above.  
26           Schonfeld Op. Report at ¶ 381. However, I fail to see how this alleged capability to physically  
27           “wire speakers to the Zone Players in multiple configurations due to the wiring options included  
28           with each Zone Player” has anything to do with the “zone scene” technology that is described  
            and claimed in the ’966 Patent.

1           551. Thus, nothing in Dr. Schonfeld's Opening Report alters my opinion that the Sonos  
2 controllers in Sonos's 2005 system did not have any functional capability for creating or invoking  
3 a "zone scene" – let alone the '966 required functional capability to cause the creation of two  
4 different, overlapping "zone scenes" that are both available for selection by a user and then later  
5 cause selected one of the two different "zone scenes" to be invoked.

6                           **ii. Sonos's 2005 System Did Not Meet Limitations 1.4 / 1.5**

7           552. When read together, limitations 1.4 and 1.5 of Asserted Claim 1 of the '966 Patent  
8 require the "computing device" to be encoded with executable "program instructions" that cause  
9 the computing device to perform the following function(s):

10           **[1.4]** while serving as a controller for a networked media playback system comprising a  
11 first zone player and at least two other zone players, wherein the first zone player is  
12 operating in a standalone mode in which the first zone player is configured to play back  
media individually:

13                           **[1.5]** receiving a first request to create a first zone scene comprising a first  
14 predefined grouping of zone players including at least the first zone player and a  
15 second zone player that are to be configured for synchronous playback of media  
when the first zone scene is invoked;

16           553. In my opinion, Sonos's 2005 system did not meet this requirement.

17           554. As explained above, the evidence I have reviewed establishes that the Sonos  
18 controllers in Sonos's 2005 system were only capable of receiving requests to form ad-hoc "zone  
19 groups," which are not the claimed "zone scenes" for the reasons explained above. Thus, for this  
20 reason, the Sonos controllers in Sonos's 2005 system did not have the required functional  
21 capability to "receiv[e] a *first request to create a first zone scene* comprising a first predefined  
22 grouping of [ZonePlayers] including at least the first [ZonePlayer] and a second [ZonePlayer] that  
23 are to be configured for synchronous playback of media when the first zone scene is invoked."

24           555. Moreover, the hard-coded "All Zones-Party Mode" option of Sonos's 2005 system  
25 that is relied upon by Dr. Schonfeld fails to meet these limitations for the additional reason that a  
26 Sonos controller would have never received any "request to create" the hard-coded "All Zones-  
27 Party Mode" option.

28           556. Despite this clear evidence establishing that the Sonos controllers and ZonePlayers

1 in Sonos's 2005 system did not have any "zone scenes" capability, Dr. Schonfeld nevertheless  
2 opines that claim limitations 1.4 and 1.5 of Asserted Claim 1 of the '966 Patent were either  
3 disclosed or rendered obvious by Sonos's 2005 system. *See* Schonfeld Op. Report at ¶¶ 970-972.  
4 However, I find Dr. Schonfeld's opinions regarding Sonos's 2005 system and claim limitations  
5 1.4 and 1.5 of Asserted Claim 1 of the '966 Patent to be flawed for several reasons.

6 557. As an initial matter, the entirety of Dr. Schonfeld's discussion regarding Sonos's  
7 2005 system and claim limitations 1.4 and 1.5 of Asserted Claim 1 of the '966 Patent is shown in  
8 the screenshots below from Dr. Schonfeld's Opening Report:

9  
10 (iv) *Limitation 1.4 "while serving as a controller for a networked media*  
11 *playback system comprising a first zone player and at least two*  
12 *other zone players, wherein the first zone player is operating in a*  
13 *standalone mode in which the first zone player is configured to play*  
14 *back media individually."*

15 970. *See supra* '885 claim 1 "network device" disclosure in, e.g., 1.6, 1.7, 1.9, "network  
16 interface" disclosure in, e.g., 1.1, "zone player" disclosure in, e.g., preamble, 1.1, 1.4-1.7, .9-10,  
17 "standalone mode" disclosure in, e.g., 1.5, 1.8, 1.10.  
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(v) *Limitation 1.5 receiving a first request to create a first zone scene comprising a first predefined grouping of zone players including at least the first zone player and a second zone player that are to be configured for synchronous playback of media when the first zone scene is invoked;*

971. *See supra* '885 claim 1 Limitation 1.6. Included in my incorporation by reference is my discussion of the "first zone scene" disclosure in, e.g., 1.6 I include in my incorporation by reference the discussion of the creation of the first zone scene, its composition, its synchronous playback configuration, and the ability of invocation of that zone scene.

972. Additionally, dependent claim 6 of the '966 patent informs the scope of independent claim 1. Dependent claim 6 of the '966 patent recites that "wherein the first predefined grouping of zone players does not include the third zone player, and wherein the second predefined grouping of zone players does not include the second zone player," effectively requiring that the first and second predefined groupings of zone players not be entirely overlapping, each with the same three zone players. Because claim 6 depends from claim 1 and must necessarily narrow the scope of claim 1, I understand that claim 1 includes first and second predefined groupings of zone players, where those groupings of zone players can wholly overlap. Indeed, such an overlap scenario would be consistent e.g., with a user having a user-created zone group including all three zone players, and having a "Party Mode," *i.e.*, a zone group including all three zone players. I therefore incorporate by reference the disclosure of "party mode" from my discussion, *supra*, regarding claim 1 of the '885 patent. I note that the claim scope of claim 7 of the '885 patent includes a similar limitation and therefore implies a similar scope for claim 1 of the '885 patent. This is supportive of my opinions regarding claim of the '885 patent as well.

558. As these screenshots demonstrate, other than paragraph 972, Dr. Schonfeld is relying exclusively on his prior discussion of Sonos's 2005 system in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a

1 different type of device than Asserted Claim 1 of the '885 Patent (a “computing device” configured  
2 to “serv[e] as a controller” as opposed to a “zone player”), claim limitations 1.4 and 1.5 of Asserted  
3 Claim 1 of the '966 Patent use different claim language than the limitations of Asserted Claim 1  
4 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior  
5 discussion of Sonos’s 2005 system in the context of the claim limitations of Asserted Claim 1 of  
6 the '885 Patent applies to claim limitations 1.4 and 1.5 of Asserted Claim 1 of the '966 Patent. In  
7 fact, Dr. Schonfeld fails to even state whether his opinion is that claim limitations 1.4 and 1.5 of  
8 Asserted Claim 1 of the '966 Patent were actually *disclosed* by Sonos’s 2005 system versus  
9 whether his opinion is that claim limitations 1.4 and 1.5 of Asserted Claim 1 of the '966 Patent  
10 were only *rendered obvious* by the Sonos’s 2005 system. And along similar lines, Dr. Schonfeld  
11 never once articulates what he considers to be the claimed “first request to create a first zone scene”  
12 in Sonos’s 2005 system. For these reasons, I disagree that Dr. Schonfeld’s barebones discussion  
13 of claim limitations 1.4 and 1.5 of Asserted Claim 1 of the '966 Patent amounts to a detailed and  
14 complete statement of all opinions to be expressed and the basis and reasons therefor, which I  
15 understand to be the governing standard for expert reports, and that barebones discussion has  
16 prejudiced my ability to fully discern, assess, and respond to his opinions regarding claim  
17 limitations 1.4 and 1.5 of Asserted Claim 1 of the '966 Patent.<sup>18</sup>

18 559. With that said, as I have discussed above in Section XV.A.1.i as well as in my '885  
19 Rebuttal Report, Dr. Schonfeld’s analysis of Sonos’s 2005 system in the context of Asserted Claim  
20 1 of the '885 Patent suffers from a number of flaws, many of which are applicable to claim  
21 limitations 1.4 and 1.5 of Asserted Claim 1 of the '966 Patent as well – including that his analysis  
22 is premised on both an incorrect interpretation of what is required to qualify as a “zone scene” and  
23 an inaccurate and misleading characterization of Sonos’s 2005 system functionality and the  
24 evidence related thereto.

25 560. Lastly, to the extent I correctly understand Dr. Schonfeld’s statement in paragraph  
26 972 that he “understand[s] that claim 1 includes first and second predefined groupings of zone

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27 <sup>18</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.



1 players, where those groupings of zone players can wholly overlap,” we appear to be in agreement  
2 on this point. *See* Schonfeld Op. Report at ¶ 972. Specifically, I agree with Dr. Schonfeld that  
3 Asserted Claim 1 of the ’966 Patent encompasses a scenario where one of the claimed “predefined  
4 grouping[s] of zone players” of one of the claimed “zone scenes” is wholly encompassed by the  
5 other of the claimed “predefined grouping[s] of zone players” of the other of the claimed “zone  
6 scenes,” such as a scenario where the “first zone scene” includes the first, second, and third zone  
7 players while the “second zone scene” includes only the first and third zone players (or vice versa).  
8 However, Dr. Schonfeld then goes to state that “such an overlap scenario would be consistent e.g.,  
9 with a user having a user-created zone group including all three zone players, and having a ‘Party  
10 Mode,’ i.e, a zone group including all three zone players,” which appears to be a reference to the  
11 “zone scene” and “Party Mode” functionality of Sonos’s 2005 system. Dr. Schonfeld never  
12 attempts to actually map this alleged “overlap scenario” to the claim limitations of the ’966 Patent,  
13 but regardless, I disagree that the co-existence of an ad-hoc “zone group” and a hard-coded “All  
14 Zones-Party Mode” option amounts to the claimed requirement of having co-existing, overlapping  
15 “zone scenes” because neither an ad-hoc “zone group” nor a hard-coded “All Zones-Party Mode”  
16 option is a “zone scene” for all of the reasons explained above. Moreover, I fail to see how this  
17 scenario involving the hard-coded “All Zones-Party Mode” option of Sonos’s 2005 system could  
18 possibly have any relevance to limitations 1.4 and 1.5 of Asserted Claim 1 of the ’966 Patent given  
19 that a Sonos Controller never received any “request to create” the hard-coded “All Zones-Party  
20 Mode” option.

21 561. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that the Sonos  
22 controllers in Sonos’s 2005 system did not have the functional capability required by limitations  
23 1.4 / 1.5 of Asserted Claim 1 of the ’966 Patent.

24 **iii. Sonos’s 2005 System Did Not Meet Limitations 1.4 / 1.6**

25 562. When read together, limitations 1.4 and 1.6 of Asserted Claim 1 of the ’966 Patent  
26 require the “computing device” to be encoded with executable “program instructions” that cause  
27 the computing device to perform the following function(s):  
28

1 [1.4] while serving as a controller for a networked media playback system comprising a  
2 first zone player and at least two other zone players, wherein the first zone player is  
3 operating in a standalone mode in which the first zone player is configured to play back  
4 media individually:

5 ...

6 [1.6] based on the first request, i) causing creation of the first zone scene, ii)  
7 causing an indication of the first zone scene to be transmitted to the first zone  
8 player, and iii) causing storage of the first zone scene;

9 563. In my opinion, Sonos's 2005 system did not meet this requirement.

10 564. As explained above, the evidence I have reviewed establishes that the Sonos  
11 controllers in Sonos's 2005 system only had functional capability for forming ad-hoc "zone  
12 groups," which are not the claimed "zone scenes" for the reasons explained above. Thus, for this  
13 reason, the Sonos Controllers in Sonos's 2005 system did not have the required functional  
14 capability to "i) caus[e] creation of the first zone scene, ii) caus[e] an indication of the first zone  
15 scene to be transmitted to the first [ZonePlayer], and iii) caus[e] storage of the first zone scene."

16 565. Moreover, the hard-coded "All Zones-Party Mode" option of Sonos's 2005 system  
17 that is relied upon by Dr. Schonfeld above fails to meet these limitations for the additional reason  
18 that a Sonos controller would have never received any "request to create" the hard-coded "All  
19 Zones-Party Mode" option and also would have never "caus[ed] creation of" the hard-coded "All  
20 Zones-Party Mode" option, "caus[ed] an indication of" the hard-coded "All Zones-Party Mode"  
21 option to be "transmitted to the first [ZonePlayer]," or "caus[ed] storage of" the hard-coded "All  
22 Zones-Party Mode" option.

23 566. Despite this clear evidence establishing that the Sonos controllers and ZonePlayers  
24 in Sonos's 2005 system did not have any "zone scenes" capability, Dr. Schonfeld nevertheless  
25 opines that claim limitations 1.4 and 1.6 of Asserted Claim 1 of the '966 Patent were either  
26 disclosed or rendered obvious by Sonos's 2005 system. *See* Schonfeld Op. Report at ¶¶ 970, 973.  
27 However, I find Dr. Schonfeld's opinions regarding Sonos's 2005 system and claim limitations  
28 1.4 and 1.6 of Asserted Claim 1 of the '966 Patent to be flawed for several reasons.

567. As an initial matter, the entirety of Dr. Schonfeld's discussion regarding Sonos's

2005 system and claim limitations 1.4 and 1.6 of Asserted Claim 1 of the '966 Patent is shown in the screenshots below from Dr. Schonfeld's Opening Report:

(iv) *Limitation 1.4 "while serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players, wherein the first zone player is operating in a standalone mode in which the first zone player is configured to play back media individually:"*

970. *See supra* '885 claim 1 "network device" disclosure in, e.g., 1.6, 1.7, 1.9, "network interface" disclosure in, e.g., 1.1, "zone player" disclosure in, e.g., preamble, 1.1, 1.4-1.7, .9-10, "standalone mode" disclosure in, e.g., 1.5, 1.8, 1.10.

(vi) *Limitation 1.6 based on the first request, i) causing creation of the first zone scene, ii) causing an indication of the first zone scene to be transmitted to the first zone player, and iii) causing storage of the first zone scene;*

973. *See supra* '885 claim 1, Limitation 1.6.

568. As these screenshots demonstrate, Dr. Schonfeld is relying exclusively on his prior discussion of Sonos's 2005 system in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a "zone player"), claim limitations 1.4 and 1.6 of Asserted Claim 1 of the '966 Patent use different claim language than the limitations of Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion of Sonos's 2005 system in the context of the claim limitations of Asserted Claim 1 of the '885 Patent applies to claim limitations 1.4 and 1.6 of Asserted Claim 1 of the '966 Patent. In fact, Dr. Schonfeld fails to even state whether his opinion is that claim limitations 1.4 and 1.6 of Asserted Claim 1 of the '966 Patent were actually *disclosed* by Sonos's 2005 system versus whether his opinion is that claim limitations 1.4 and 1.6 of Asserted Claim 1 of the '966 Patent were only *rendered obvious* by the Sonos's 2005 system. And along similar lines, Dr. Schonfeld never articulates what he

1 considers to be the claimed functions of “i) causing creation of the first zone scene, ii) causing an  
2 indication of the first zone scene to be transmitted to the first zone player, and iii) causing storage  
3 of the first zone scene” in Sonos’s 2005 system. For these reasons, I disagree that Dr. Schonfeld’s  
4 barebones discussion of claim limitations 1.4 and 1.6 of Asserted Claim 1 of the ‘966 Patent  
5 amounts to a detailed and complete statement of all opinions to be expressed and the basis and  
6 reasons therefor, which I understand to be the governing standard for expert reports, and that  
7 barebones discussion has prejudiced my ability to fully discern, assess, and respond to his opinions  
8 regarding claim limitations 1.4 and 1.6 of Asserted Claim 1 of the ‘966 Patent.<sup>19</sup>

9         569. With that said, as I have discussed above in Section XV.A.1.i as well as in my ‘885  
10 Rebuttal Report regarding Asserted Claim 1 of the ‘885 Patent, Dr. Schonfeld’s analysis of Sonos’s  
11 2005 system in the context of Asserted Claim 1 of the ‘885 Patent suffers from a number of flaws,  
12 many of which are applicable to claim limitations 1.4 and 1.6 of Asserted Claim 1 of the ‘966  
13 Patent as well – including that his analysis is premised on both an incorrect interpretation of what  
14 is required to qualify as a “zone scene” and an inaccurate and misleading characterization of  
15 Sonos’s 2005 system functionality and the evidence related thereto.

16         570. For instance, in his section discussing Sonos’s 2005 system and claim limitation  
17 1.6 of Asserted Claim 1 of the ‘885 Patent, Dr. Schonfeld relies exclusively on the functionality in  
18 Sonos’s 2005 system for forming ad-hoc “zone groups,” which are not the claimed “zone scenes”  
19 for all of the reasons I have previously explained.

20         571. Further, when discussing the “first indication that the first zone player has been  
21 added to a first zone scene” required by limitation 1.6 of the ‘885 Patent, Dr. Schonfeld states that  
22 “[t]he Sonos System allows a Zone Player to receive a first indication in the form of network  
23 messages passed from the controller indicating that the Zone Player is to synchronously playback  
24 media with other Zone Players when the ‘zone scene’ that those players were added to is invoked  
25 by selecting that ‘zone scene’ for synchronous playback.” Schonfeld Op. Report at ¶ 336; *see*  
26 *also id.* at ¶ 337 (opining that “[t]he Sonos System user manual also describes using the CR100

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27 <sup>19</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

1 controller as well as the Mac and Windows desktop controllers to send the claimed indication to  
2 the Zone Player”), ¶ 338 (opining that “[t]he Sonos System allows a user to add a speaker to a  
3 group and send an indication of that addition” and point to the “Zone groups” section at 3-12 of  
4 the Sonos 2005 User Guide); ¶ 342 (asserting that Sonos’s 2005 system sent the “claimed  
5 indication” based on deposition testimony from Mr. Lambourne where he was explaining that “the  
6 Party Mode in our original controller was a command sent by the control design that would tell  
7 the speakers in that moment to go for a group, and Party Mode was the term we gave to all the  
8 speakers together”); ¶¶ 353-357 (explaining that when “the controller adds [a] first Zone Player to  
9 a first joinee group,” a “SetAVTransportURI SOAP action with a Rincon group URI that identifies  
10 the group to join (joinee group)” is sent from the “controller” to the “first Zone Player” and is then  
11 received and handled by the “first Zone Player”).

12 572. Although it is not entirely clear, what Dr. Schonfeld appears to be relying on here  
13 as the alleged “first indication” of claim limitation 1.6 of the ’885 Patent is a SetAVTransportURI  
14 message containing a URI argument set to “x-rincon:<GROUP COORDINATOR UUID>,” which  
15 would have been sent by a Sonos controller to one or more ZonePlayers when a user requested to  
16 form a new ad-hoc “zone group” in Sonos’s 2005 system. However, as I previously explained in  
17 my ’885 Rebuttal Report, the SetAVTransportURI message identified by Dr. Schonfeld was not  
18 an “indication that the [ZonePlayer] has been added to a first zone scene,” as required by limitation  
19 1.6 of Asserted Claim 1 of the ’885 Patent. For similar reasons to those explained in my ’885  
20 Rebuttal Report, the SetAVTransportURI message identified by Dr. Schonfeld is not an  
21 “indication” of a “first zone scene,” as required by limitation 1.6 of Asserted Claim 1 of the ’966  
22 Patent. Instead, that SetAVTransportURI message was a direction for the ZonePlayer to enter into  
23 a new ad-hoc “zone group,” which is not a “zone scene” for all of the reasons I have already  
24 explained above.

25 573. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that the Sonos  
26 controllers in Sonos’s 2005 system did not have the functional capability required by limitations  
27 1.4 / 1.6 of Asserted Claim 1 of the ’966 Patent.  
28

iv. Sonos's 2005 System Did Not Meet Limitations 1.4 / 1.7

574. When read together, limitations 1.4 and 1.7 of Asserted Claim 1 of the '966 Patent require the "computing device" to be encoded with executable "program instructions" that cause the computing device to perform the following function(s):

[1.4] while serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players, wherein the first zone player is operating in a standalone mode in which the first zone player is configured to play back media individually:

...

[1.7] receiving a second request to create a second zone scene comprising a second predefined grouping of zone players including at least the first zone player and a third zone player that are to be configured for synchronous playback of media when the second zone scene is invoked, wherein the third zone player is different than the second zone player;

575. In my opinion, Sonos's 2005 system did not meet this requirement.

576. As explained above, the evidence I have reviewed establishes that the Sonos controllers in Sonos's 2005 system were only capable of receiving requests to form ad-hoc "zone groups," which are not the claimed "zone scenes" for the reasons explained above. Thus, for this reason, the Sonos controllers in Sonos's 2005 system did not have the required functional capability to "receiv[e] a second request to create a second zone scene comprising a second predefined grouping of [ZonePlayers] including at least the first [ZonePlayer] and a third [ZonePlayer] that are to be configured for synchronous playback of media when the second zone scene is invoked."

577. Further, the hard-coded "All Zones-Party Mode" option of Sonos's 2005 system that is relied upon by Dr. Schonfeld fails to meet these limitations for the additional reason that a Sonos controller would have never received any "request to create" the hard-coded "All Zones-Party Mode" option.

578. Further yet, claim limitations 1.4 and 1.7 require the "computing device" to "receiv[e] [the] second request to create [the] second zone scene" at a time when the "first zone player" is "operating in a standalone mode," which means that the created "first zone scene" must

1 be in an inactive state at the time that this functionality is carried out (otherwise, the “first zone  
2 player” could not be in “standalone mode”). However, in Sonos’s 2005 system, it was not possible  
3 for an ad-hoc “zone group” to exist in an inactive state in which the members of the “zone group”  
4 could be used for individual playback while the “zone group” remained available for selection by  
5 a user; rather, an ad-hoc “zone group” only remained in existence for the temporary period of time  
6 during which it was activated, and once deactivated, the “zone group” would cease to exist.

7 579. Despite this clear evidence establishing that the Sonos controllers and ZonePlayers  
8 in Sonos’s 2005 system did not have any “zone scenes” capability, Dr. Schonfeld nevertheless  
9 opines that claim limitations 1.4 and 1.7 of Asserted Claim 1 of the ’966 Patent were either  
10 disclosed or rendered obvious by Sonos’s 2005 system. *See* Schonfeld Op. Report at ¶¶ 970, 974.  
11 However, I find Dr. Schonfeld’s opinions regarding Sonos’s 2005 system and claim limitations  
12 1.4 and 1.7 of Asserted Claim 1 of the ’966 Patent to be flawed for several reasons.

13 580. As an initial matter, the entirety of Dr. Schonfeld’s discussion regarding Sonos’s  
14 2005 system and claim limitations 1.4 and 1.7 of Asserted Claim 1 of the ’966 Patent is shown in  
15 the screenshots below from Dr. Schonfeld’s Opening Report:  
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(iv) *Limitation 1.4 "while serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players, wherein the first zone player is operating in a standalone mode in which the first zone player is configured to play back media individually:"*

970. *See supra* '885 claim 1 "network device" disclosure in, e.g., 1.6, 1.7, 1.9, "network interface" disclosure in, e.g., 1.1, "zone player" disclosure in, e.g., preamble, 1.1, 1.4-1.7, .9-10, "standalone mode" disclosure in, e.g., 1.5, 1.8, 1.10.

(vii) *Limitation 1.7 receiving a second request to create a second zone scene comprising a second predefined grouping of zone players including at least the first zone player and a third zone player that are to be configured for synchronous playback of media when the second zone scene is invoked, wherein the third zone player is different than the second zone player;*

974. *See supra* '885 claim 1, Limitation 1.6, 1.7.

581. As these screenshots demonstrate, Dr. Schonfeld is relying exclusively on his prior discussion of Sonos's 2005 system in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a "zone player"), claim limitations 1.4 and 1.7 of Asserted Claim 1 of the '966 Patent use different claim language than the limitations of Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion of Sonos's 2005 system in the context of the claim limitations of Asserted Claim 1 of the '885 Patent applies to claim limitations 1.4 and 1.7 of Asserted Claim 1 of the '966 Patent. In fact, Dr. Schonfeld fails to even state whether his opinion is that claim limitations 1.4 and 1.7 of Asserted Claim 1 of the '966 Patent were actually *disclosed* by Sonos's 2005 system versus whether his opinion is that claim limitations 1.4 and 1.7 of Asserted Claim 1 of the '966 Patent were only *rendered obvious* by the Sonos's 2005 system. And along similar lines, Dr. Schonfeld never once articulates what he considers to be the claimed "second request to create a second zone scene" in Sonos's 2005



1 system. For these reasons, I disagree that Dr. Schonfeld's barebones discussion of claim  
2 limitations 1.4 and 1.7 of Asserted Claim 1 of the '966 Patent amounts to a detailed and complete  
3 statement of all opinions to be expressed and the basis and reasons therefor, which I understand to  
4 be the governing standard for expert reports, and that barebones discussion has prejudiced my  
5 ability to fully discern, assess, and respond to his opinions regarding claim limitations 1.4 and 1.7  
6 of Asserted Claim 1 of the '966 Patent.<sup>20</sup>

7 582. With that said, as I have discussed above in Section XV.A.1.i as well as in my '885  
8 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's analysis of Sonos's  
9 2005 system in the context of Asserted Claim 1 of the '885 Patent suffers from a number of flaws,  
10 many of which are applicable to claim limitations 1.4 and 1.7 of Asserted Claim 1 of the '966  
11 Patent as well – including that his analysis is premised on both an incorrect interpretation of what  
12 is required to qualify as a “zone scene” and an inaccurate and misleading characterization of  
13 Sonos's 2005 system functionality and the evidence related thereto.

14 583. Thus, nothing in Dr. Schonfeld's Opening Report alters my opinion that the Sonos  
15 controllers in Sonos's 2005 system did not have the functional capability required by limitations  
16 1.4 / 1.7 of Asserted Claim 1 of the '966 Patent.

17 **v. Sonos's 2005 System Did Not Meet Limitations 1.4 / 1.8**

18 584. When read together, limitations 1.4 and 1.8 of Asserted Claim 1 of the '966 Patent  
19 require the “computing device” to be encoded with executable “program instructions” that cause  
20 the computing device to perform the following function(s):

21 **[1.4]** while serving as a controller for a networked media playback system comprising a  
22 first zone player and at least two other zone players, wherein the first zone player is  
23 operating in a standalone mode in which the first zone player is configured to play back  
24 media individually:

25 ...

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26  
27  
28 <sup>20</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
in his Opening Report, I expressly reserve my right to respond.

[1.8] based on the second request, i) causing creation of the second zone scene, ii) causing an indication of the second zone scene to be transmitted to the first zone player, and iii) causing storage of the second zone scene;

585. In my opinion, Sonos's 2005 system did not meet this requirement.

586. As explained above, the evidence I have reviewed establishes that the Sonos controllers in Sonos's 2005 system only had functional capability for forming ad-hoc "zone groups," which are not the claimed "zone scenes" for the reasons explained above. Thus, for this reason, the Sonos Controllers in Sonos's 2005 system did not have the required functional capability to "i) caus[e] creation of the second zone scene, ii) caus[e] an indication of the first zone scene to be transmitted to the first [ZonePlayer], and iii) caus[e] storage of the second zone scene."

587. Further, the hard-coded "All Zones-Party Mode" option of Sonos's 2005 system that is relied upon by Dr. Schonfeld above fails to meet these limitations for the additional reason that a Sonos controller would have never received any "request to create" the hard-coded "All Zones-Party Mode" option and also would have never "caus[ed] creation of" the hard-coded "All Zones-Party Mode" option, "caus[ed] an indication of" the hard-coded "All Zones-Party Mode" option to be "transmitted to the first [ZonePlayer]," or "caus[ed] storage of" the hard-coded "All Zones-Party Mode" option.

588. Further yet, claim limitations 1.4 and 1.8 require the "computing device" to carry out the claimed actions with respect to a "second zone scene" at a time when the "first zone player" is "operating in a standalone mode," which means that the created "first zone scene" must be in an inactive state at the time that this functionality is carried out (otherwise, the "first zone player" could not be in "standalone mode"). However, in Sonos's 2005 system, it was not possible for an ad-hoc "zone group" to exist in an inactive state in which the members of the "zone group" could be used for individual playback while the "zone group" remained available for selection by a user; rather, an ad-hoc "zone group" only remained in existence for the temporary period of time during which it was activated, and once deactivated, the "zone group" would cease to exist.

589. Still further, in the context of the surrounding claim language, a POSITA would understand that claim limitations 1.4 and 1.8 require the "computing device" to carry out the

1 claimed actions with respect to a “second zone scene” that includes at least one common “zone  
2 player” with the “first zone scene” (i.e., the claimed “first zone player”) but without modifying or  
3 destroying the “first zone scene” that was created, such that the overlapping “first zone scene” and  
4 “second zone scene” can thereafter both be “display[ed]” to a user for selection. However, in  
5 Sonos’s 2005 system, it was not possible to create a new ad-hoc “zone group” comprising a  
6 ZonePlayer that was already a member of another preexisting “zone group” without first modifying  
7 or destroying that preexisting “zone group.” For this additional reason, a Sonos controller in  
8 Sonos’s 2005 system did not have the required functional capability to “i) caus[e] creation of the  
9 second zone scene, ii) caus[e] an indication of the first zone scene to be transmitted to the first  
10 [ZonePlayer], and iii) caus[e] storage of the second zone scene,” where the “second zone scene”  
11 includes at least one common “zone player” with the created “first zone scene.”

12 590. Despite this clear evidence establishing that the Sonos controllers and ZonePlayers  
13 in Sonos’s 2005 system did not have any “zone scenes” capability, Dr. Schonfeld nevertheless  
14 opines that claim limitations 1.4 and 1.8 of Asserted Claim 1 of the ’966 Patent were either  
15 disclosed or rendered obvious by Sonos’s 2005 system. *See* Schonfeld Op. Report at ¶¶ 970, 975.  
16 However, I find Dr. Schonfeld’s opinions regarding Sonos’s 2005 system and claim limitations  
17 1.4 and 1.8 of Asserted Claim 1 of the ’966 Patent to be flawed for several reasons.

18 591. As an initial matter, the entirety of Dr. Schonfeld’s discussion regarding Sonos’s  
19 2005 system and claim limitations 1.4 and 1.8 of Asserted Claim 1 of the ’966 Patent is shown in  
20 the screenshots below from Dr. Schonfeld’s Opening Report:

21  
22 (iv) *Limitation 1.4 “while serving as a controller for a networked media*  
23 *playback system comprising a first zone player and at least two*  
24 *other zone players, wherein the first zone player is operating in a*  
25 *standalone mode in which the first zone player is configured to play*  
*back media individually.”*

26 970. *See supra* ‘885 claim 1 “network device” disclosure in, e.g., 1.6, 1.7, 1.9, “network  
27 interface” disclosure in, e.g., 1.1, “zone player” disclosure in, e.g., preamble, 1.1, 1.4-1.7, .9-10,  
28 “standalone mode” disclosure in, e.g., 1.5, 1.8, 1.10.

(viii) *Limitation 1.8 based on the second request, i) causing creation of the second zone scene, ii) causing an indication of the second zone scene to be transmitted to the first zone player, and iii) causing storage of the second zone scene;*

975. *See supra* '885 claim 1, Limitation 1.6, 1.7.

592. As these screenshots demonstrate, Dr. Schonfeld is relying exclusively on his prior discussion of Sonos's 2005 system in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a "zone player"), claim limitations 1.4 and 1.8 of Asserted Claim 1 of the '966 Patent use different claim language than the limitations of Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion of Sonos's 2005 system in the context of the claim limitations of Asserted Claim 1 of the '885 Patent applies to claim limitations 1.4 and 1.8 of Asserted Claim 1 of the '966 Patent. In fact, Dr. Schonfeld fails to even state whether his opinion is that claim limitations 1.4 and 1.8 of Asserted Claim 1 of the '966 Patent were actually *disclosed* by Sonos's 2005 system versus whether his opinion is that claim limitations 1.4 and 1.8 of Asserted Claim 1 of the '966 Patent were only *rendered obvious* by the Sonos's 2005 system. And along similar lines, Dr. Schonfeld never articulates what he considers to be the claimed functions of "i) causing creation of the second zone scene, ii) causing an indication of the second zone scene to be transmitted to the first zone player, and iii) causing storage of the second zone scene" in Sonos's 2005 system. For these reasons, I disagree that Dr. Schonfeld's barebones discussion of claim limitations 1.4 and 1.8 of Asserted Claim 1 of the '966 Patent amounts to a detailed and complete statement of all opinions to be expressed and the basis and reasons therefor, which I understand to be the governing standard for expert reports, and that barebones discussion has prejudiced my ability to fully discern, assess, and respond to his opinions

1 regarding claim limitations 1.4 and 1.8 of Asserted Claim 1 of the '966 Patent.<sup>21</sup>

2 593. With that said, as I have discussed above in Section XV.A.1.i as well as in my '885  
3 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's analysis of Sonos's  
4 2005 system in the context of Asserted Claim 1 of the '885 Patent suffers from a number of flaws,  
5 many of which are applicable to claim limitations 1.4 and 1.8 of Asserted Claim 1 of the '966  
6 Patent as well – including that his analysis is premised on both an incorrect interpretation of what  
7 is required to qualify as a “zone scene” and an inaccurate and misleading characterization of  
8 Sonos's 2005 system functionality and the evidence related thereto.

9 594. For instance, in his section discussing Sonos's 2005 system and claim limitations  
10 1.6-1.7 of Asserted Claim 1 of the '885 Patent, Dr. Schonfeld relies exclusively on the functionality  
11 in Sonos's 2005 system for forming ad-hoc “zone groups,” which are not the claimed “zone  
12 scenes” for all of the reasons I have previously explained.

13 595. Further, when discussing the “second indication that the first zone player has been  
14 added to a second zone scene” required by limitation 1.7 of the '885 Patent, Dr. Schonfeld  
15 describes a hypothetical scenario in which a user used a Sonos controller to remove a ZonePlayer  
16 from a first “zone group” and then add the ZonePlayer to a second “zone group.” *See* Schonfeld  
17 Op. Report at ¶¶ 374-380 (describing a scenario where a first ZonePlayer ZP1 is “drop[ped]” from  
18 a “previously created (see prior limitation) group ZP2 + ZP1” and then added as a “group member”  
19 of a new “group comprising ZP3 + ZP1 and stating that “[a]s above, the ‘indication’ may be a  
20 SetAVTransportURI SOAP action specifying a Rincon group URI with the group coordinator  
21 UUID”); ¶ 381 (explaining that “ZP1 may be joined to ZP2 and ZP3 through the ‘party mode’ /  
22 ‘all zones’ group” and that “[i]n this instance, ZP1 will receive from the controller a second  
23 indication that the zone player is joined to the ‘party mode’ group, which is configured for  
24 synchronous playback”).

25 596. In such a scenario, my understanding is that the Sonos controller would have sent  
26 a SetAVTransportURI message containing a URI argument set to “x-rincon:<GROUP

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27 <sup>21</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

COORDINATOR UUID>” to the ZonePlayer that was added to the second “zone group” (assuming the ZonePlayer was not the coordinator of the second “zone group”), and although not entirely clear, Dr. Schonfeld appears to be relying on this SetAVTransportURI message as the claimed “second indication” of limitation 1.7 of the ’885 Patent. However, as I previously explained in my ’885 Rebuttal Report, the SetAVTransportURI message identified by Dr. Schonfeld was not an “indication that the [ZonePlayer] has been added to a second zone scene.” For similar reasons to those explained in my ’885 Rebuttal Report, the SetAVTransportURI message identified by Dr. Schonfeld is not an “indication” of a “second zone scene,” as required by limitation 1.8 of Asserted Claim 1 of the ’966 Patent. Instead, that SetAVTransportURI message was a direction for the ZonePlayer to enter into a new ad-hoc “zone group,” which is not a “zone scene” for all of the reasons I have already explained above.

597. Moreover, it would have only been possible for a Sonos controller to send such a SetAVTransportURI message to the ZonePlayer that was added to the second “zone group” after the first “zone group” had been destroyed and was no longer in existence, which fails to meet the claimed functionality of causing an “indication” of the “second zone scene” to be “transmitted to the first [ZonePlayer]” while the “first zone scene” is still in existence such that the overlapping “first zone scene” and “second zone scene” can thereafter both be “display[ed]” to a user for selection, as required by Asserted Claim 1 of the ’966 Patent.

598. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that the Sonos controllers in Sonos’s 2005 system did not have the functional capability required by limitations 1.4 / 1.8 of Asserted Claim 1 of the ’966 Patent.

**vi. Sonos’s 2005 System Did Not Meet Limitations 1.4 / 1.9**

599. When read together, limitations 1.4 and 1.9 of Asserted Claim 1 of the ’966 Patent require the “computing device” to be encoded with executable “program instructions” that cause the computing device to perform the following function(s):

[1.4] while serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players, wherein the first zone player is operating in a standalone mode in which the first zone player is configured to play back media individually:



...

[1.9] displaying a representation of the first zone scene and a representation of the second zone scene; and;

600. In my opinion, Sonos's 2005 system did not meet this requirement.

601. As explained above, the evidence I have reviewed establishes that Sonos's 2005 system only provided users with the ability to form and use ad-hoc "zone groups," which are not the claimed "zone scenes" for the reasons explained above. Thus, for this reason, the Sonos controllers in Sonos's 2005 system did not have any functional capability for "displaying a representation" of a "zone scene" – let alone the required functional capability for "displaying a representation of the first zone scene and a representation of the second zone scene" in a manner that allows a user to select between them for purposes of requesting invocation.

602. Further, as explained above, the "first zone scene" and the "second zone scene" for which the "representation[s]" are "display[ed]" are required to overlap with one another by including at least one common "zone player" (i.e., the claimed "first zone player"). However, in Sonos's 2005 system, it was not possible for two ad-hoc "zone groups" to overlap with one another; rather, each ZonePlayer could only be a member of a single "zone group" at any given time. Thus, for this additional reason, a Sonos controller in Sonos's 2005 system did not have the required functional capability to "display[] a representation of the first zone scene and a representation of the second zone scene."

603. Further yet, claim limitations 1.4 and 1.9 require the "computing device" to "display[] a representation of the first zone scene and a representation of the second zone scene" at a time when the "first zone player" is "operating in a standalone mode," which means that the "first zone scene" and the "second zone scene" both must be in an inactive state at the time that the "representation[s]" are "display[ed]" (otherwise, the "first zone player" could not be in "standalone mode"). However, in Sonos's 2005 system, it was not possible for an ad-hoc "zone group" to exist in an inactive state in which the members of the "zone group" could be used for individual playback while the "zone group" remained available for selection by a user; rather, an ad-hoc "zone group" only remained in existence for the temporary period of time during which it

1 was activated, and once deactivated, the “zone group” would cease to exist. Moreover, while a  
2 Sonos controller was capable of displaying the hard-coded “All Zones-Party Mode” option at a  
3 time when a ZonePlayer was operating in standalone mode, (i) the hard-coded “All Zones-Party  
4 Mode” option was not a “zone scene” for the reasons explained above and (ii) the hard-coded “All  
5 Zones-Party Mode” option alone cannot possibly meet the claimed requirement of displaying  
6 “representations” of multiple overlapping “zone scenes.”

7 604. Despite this clear evidence establishing that the Sonos controllers and ZonePlayers  
8 in Sonos’s 2005 system did not have any “zone scenes” capability, Dr. Schonfeld nevertheless  
9 opines that claim limitations 1.4 and 1.9 of Asserted Claim 1 of the ’966 Patent were either  
10 disclosed or rendered obvious by Sonos’s 2005 system. *See* Schonfeld Op. Report at ¶¶ 970, 976.  
11 However, I find Dr. Schonfeld’s opinions regarding Sonos’s 2005 system and claim limitations  
12 1.4 and 1.8 of Asserted Claim 1 of the ’966 Patent to be flawed for several reasons.

13 605. As an initial matter, the entirety of Dr. Schonfeld’s discussion regarding Sonos’s  
14 2005 system and claim limitations 1.4 and 1.9 of Asserted Claim 1 of the ’966 Patent is shown in  
15 the screenshots below from Dr. Schonfeld’s Opening Report:

16  
17  
18 (iv) *Limitation 1.4 “while serving as a controller for a networked media*  
19 *playback system comprising a first zone player and at least two*  
20 *other zone players, wherein the first zone player is operating in a*  
*standalone mode in which the first zone player is configured to play*  
*back media individually.”*

21 970. *See supra* ’885 claim 1 “network device” disclosure in, e.g., 1.6, 1.7, 1.9, “network  
22 interface” disclosure in, e.g., 1.1, “zone player” disclosure in, e.g., preamble, 1.1, 1.4-1.7, .9-10,  
23 “standalone mode” disclosure in, e.g., 1.5, 1.8, 1.10.



(ix) *Limitation 1.9 displaying a representation of the first zone scene and a representation of the second zone scene; and*

976. *See supra* '885 claim 1, Limitations 1.6 and 1.7.

606. As these screenshots demonstrate, Dr. Schonfeld is relying exclusively on his prior discussion of Sonos's 2005 system in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a "zone player"), claim limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent use different claim language than the limitations of Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion of Sonos's 2005 system in the context of the claim limitations of Asserted Claim 1 of the '885 Patent applies to claim limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent. In fact, Dr. Schonfeld fails to even state whether his opinion is that claim limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent were actually *disclosed* by Sonos's 2005 system versus whether his opinion is that claim limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent were only *rendered obvious* by the Sonos's 2005 system. And along similar lines, Dr. Schonfeld never articulates what he considers to be the displayed "representation of the first zone scene" or the displayed "representation of the second zone scene" in Sonos's 2005 system. For these reasons, I disagree that Dr. Schonfeld's barebones discussion of claim limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent amounts to a detailed and complete statement of all opinions to be expressed and the basis and reasons therefor, which I understand to be the governing standard for expert reports, and that barebones discussion has prejudiced my ability to fully discern, assess, and respond to his opinions regarding claim limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent.<sup>22</sup>

607. With that said, as I have discussed above in Section XV.A.1.i as well as in my '885

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<sup>22</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies in his Opening Report, I expressly reserve my right to respond.

1 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's analysis of Sonos's  
2 2005 system in the context of Asserted Claim 1 of the '885 Patent suffers from a number of flaws,  
3 many of which are applicable to claim limitations 1.4 and 1.9 of Asserted Claim 1 of the '966  
4 Patent as well – including that his analysis is premised on both an incorrect interpretation of what  
5 is required to qualify as a “zone scene” and an inaccurate and misleading characterization of  
6 Sonos's 2005 system functionality and the evidence related thereto.

7 608. For instance, in his section discussing Sonos's 2005 system and claim limitations  
8 1.6-1.7 of Asserted Claim 1 of the '885 Patent, Dr. Schonfeld relies exclusively on the functionality  
9 in Sonos's 2005 system for forming ad-hoc “zone groups,” which are not the claimed “zone  
10 scenes” for all of the reasons I have previously explained.

11 609. Further, as mentioned above, the lone substantive paragraph that Dr. Schonfeld  
12 included in his discussion of Asserted Claim 1 of the '966 Patent (paragraph 972) references an  
13 “overlap scenario” involving “a user having a user-created zone group including all three zone  
14 players, and having a ‘Party Mode,’ i.e, a zone group including all three zone players.” *See*  
15 Schonfeld Op. Report at ¶ 972. Dr. Schonfeld never attempts to actually map this alleged “overlap  
16 scenario” to the claim limitations of the '966 Patent, but regardless, I disagree that the co-existence  
17 of an ad-hoc “zone group” and a hard-coded “All Zones-Party Mode” option amounts to the  
18 claimed requirement of displaying “representation[s]” of two co-existing, overlapping “zone  
19 scenes” for at least that reasons that (i) neither an ad-hoc “zone group” nor a hard-coded “All  
20 Zones-Party Mode” option is a “zone scene” for all of the reasons explained above, and (ii) the ad-  
21 hoc “zone group” in this alleged “overlap scenario” could only exist in an active state, which means  
22 that none of the ZonePlayers in this “overlap scenario” would be operating in a “standalone mode”  
23 as required by claim limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent.

24 610. Thus, nothing in Dr. Schonfeld's Opening Report alters my opinion that the Sonos  
25 controllers in Sonos's 2005 system did not have the functional capability required by limitations  
26 1.4 / 1.9 of Asserted Claim 1 of the '966 Patent.

27 **vii. Sonos's 2005 System Did Not Meet Limitations 1.4 / 1.10**

28 611. When read together, limitations 1.4 and 1.10 of Asserted Claim 1 of the '966 Patent

1 require the “computing device” to be encoded with executable “program instructions” that cause  
2 the computing device to perform the following function(s):

3 [1.4] while serving as a controller for a networked media playback system comprising a  
4 first zone player and at least two other zone players, wherein the first zone player is  
5 operating in a standalone mode in which the first zone player is configured to play back  
6 media individually:

7 ...

8 [1.10] while displaying the representation of the first zone scene and the  
9 representation of the second zone scene, receiving a third request to invoke the first  
10 zone scene; and

11 612. In my opinion, Sonos’s 2005 system did not meet this requirement.

12 613. As explained above, the evidence I have reviewed establishes that Sonos’s 2005  
13 system only provided users with the ability to form and use ad-hoc “zone groups,” which are not  
14 the claimed “zone scenes” for the reasons explained above. Thus, for this reason, the Sonos  
15 controllers in Sonos’s 2005 system did not have any functional capability for either “displaying a  
16 representation” of a “zone scene” or receiving a “request to invoke” a “zone scene” – let alone the  
17 required functional capability for “while displaying the representation of the first zone scene and  
18 the representation of the second zone scene, receiving a third request to invoke the first zone  
19 scene.”

20 614. Further, as explained above, the “first zone scene” and the “second zone scene” for  
21 which the “representation[s]” are “display[ed]” are required to overlap with one another by  
22 including at least one common “zone player” (i.e., the claimed “first zone player”). However, in  
23 Sonos’s 2005 system, it was not possible for two ad-hoc “zone groups” to overlap with one  
24 another; rather, each ZonePlayer could only be a member of a single “zone group” at any given  
25 time. Thus, for this additional reason, a Sonos controller in Sonos’s 2005 system did not have the  
26 required functional capability to “while displaying the representation of the first zone scene and  
27 the representation of the second zone scene, receiving a third request to invoke the first zone  
28 scene.”

615. Further yet, claim limitations 1.4 and 1.10 require the “computing device” to be

1 “displaying the representation of the first zone scene and the representation of the second zone  
2 scene” and to “receiv[e] a third request to invoke the first zone scene” at a time when the “first  
3 zone player” is “operating in a standalone mode,” which means that the “first zone scene” and the  
4 “second zone scene” both must be in an inactive state at the time that this functionality is carried  
5 out (otherwise, the “first zone player” could not be in “standalone mode”). However, in Sonos’s  
6 2005 system, it was not possible for an ad-hoc “zone group” to exist in an inactive state in which  
7 the members of the “zone group” could be used for individual playback while the “zone group”  
8 remained available for selection by a user; rather, an ad-hoc “zone group” only remained in  
9 existence for the temporary period of time during which it was activated, and once deactivated, the  
10 “zone group” would cease to exist. Moreover, while a Sonos controller was capable of displaying  
11 the hard-coded “All Zones-Party Mode” option at a time when a ZonePlayer was operating in  
12 standalone mode, (i) the hard-coded “All Zones-Party Mode” option was not a “zone scene” for  
13 the reasons explained above and (ii) the hard-coded “All Zones-Party Mode” option alone cannot  
14 possibly meet the claimed requirement of displaying “representations” of multiple overlapping  
15 “zone scenes.”

16 616. Still further, in the context of the surrounding claim language, a POSITA would  
17 understand that claim limitations 1.4 and 1.10 require the “computing device” to receive the  
18 “request to invoke the first zone scene” at some point in time that is later than when it received the  
19 “request to create [the] first zone scene” and the “first zone scene” was created based on that  
20 “request.” Indeed, at a minimum, there must be a time gap between the time when the “computing  
21 device” received the “request to create [the] first zone scene” and the time when the “computing  
22 device” received the “request to invoke the first zone scene” that is long enough to allow (i) the  
23 “first zone scene” to be created, (ii) the “computing device” to display “representation[s]” of the  
24 “first zone scene” as well as the “second zone scene,” and (iii) a user to view the displayed  
25 “representation[s]” of the “first zone scene” and “second zone scene” and then input the “request  
26 to invoke the first zone scene.” However, in Sonos’s 2005 system, a Sonos Controller would have  
27 only received a single request that served to both create and invoke a “zone group” – it would have  
28 never received an initial “request to create” a “zone group” followed by some later, separate

1 “request to invoke” the “zone group.” This is because an ad-hoc “zone group” was automatically  
2 invoked at the time of its creation and then only remained in existence for the temporary period of  
3 time during which it was in an active state, after which time the “zone group” would cease to exist.  
4 Thus, in Sonos’s 2005 system, there would have never been a period of time during which a “zone  
5 group” was created and in existence but was in an inactive, uninvoked state such that a user was  
6 presented with an option to “request to invoke” the “zone group.”

7 617. Despite this clear evidence establishing that the Sonos controllers and ZonePlayers  
8 in Sonos’s 2005 system did not have any “zone scenes” capability, Dr. Schonfeld nevertheless  
9 opines that claim limitations 1.4 and 1.10 of Asserted Claim 1 of the ’966 Patent were either  
10 disclosed or rendered obvious by Sonos’s 2005 system. *See* Schonfeld Op. Report at ¶¶ 970, 977.  
11 However, I find Dr. Schonfeld’s opinions regarding Sonos’s 2005 system and claim limitations  
12 1.4 and 1.10 of Asserted Claim 1 of the ’966 Patent to be flawed for several reasons.

13 618. As an initial matter, the entirety of Dr. Schonfeld’s discussion regarding Sonos’s  
14 2005 system and claim limitations 1.4 and 1.10 of Asserted Claim 1 of the ’966 Patent is shown  
15 in the screenshots below from Dr. Schonfeld’s Opening Report:

16  
17 (iv) *Limitation 1.4 “while serving as a controller for a networked media*  
18 *playback system comprising a first zone player and at least two*  
19 *other zone players, wherein the first zone player is operating in a*  
20 *standalone mode in which the first zone player is configured to play*  
21 *back media individually.”*

22 970. *See supra* ‘885 claim 1 “network device” disclosure in, e.g., 1.6, 1.7, 1.9, “network  
23 interface” disclosure in, e.g., 1.1, “zone player” disclosure in, e.g., preamble, 1.1, 1.4-1.7, .9-10,  
24 “standalone mode” disclosure in, e.g., 1.5, 1.8, 1.10.

(x) *Limitation 1.10 while displaying the representation of the first zone scene and the representation of the second zone scene, receiving a third request to invoke the first zone scene; and*

977. *See supra* '885 claim 1, Limitation 1.9.

619. As these screenshots demonstrate, Dr. Schonfeld is relying exclusively on his prior discussion of Sonos's 2005 system in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a "zone player"), claim limitations 1.4 and 1.10 of Asserted Claim 1 of the '966 Patent use different claim language than the limitations of Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion of Sonos's 2005 system in the context of the claim limitations of Asserted Claim 1 of the '885 Patent applies to claim limitations 1.4 and 1.10 of Asserted Claim 1 of the '966 Patent. In fact, Dr. Schonfeld fails to even state whether his opinion is that claim limitations 1.4 and 1.10 of Asserted Claim 1 of the '966 Patent were actually *disclosed* by Sonos's 2005 system versus whether his opinion is that claim limitations 1.4 and 1.10 of Asserted Claim 1 of the '966 Patent were only *rendered obvious* by the Sonos's 2005 system. And along similar lines, Dr. Schonfeld never articulates what he considers to be the displayed "representation of the first zone scene," the displayed "representation of the second zone scene," or the "third request to invoke the first zone scene" in Sonos's 2005 system. For these reasons, I disagree that Dr. Schonfeld's barebones discussion of claim limitations 1.4 and 1.10 of Asserted Claim 1 of the '966 Patent amounts to a detailed and complete statement of all opinions to be expressed and the basis and reasons therefor, which I understand to be the governing standard for expert reports, and that barebones discussion has prejudiced my ability to fully discern, assess, and respond to his opinions regarding claim limitations 1.4 and 1.10 of Asserted Claim 1 of the '966 Patent.<sup>23</sup>

620. With that said, as I have discussed above in Section XV.A.1.i as well as in my '885

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<sup>23</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies in his Opening Report, I expressly reserve my right to respond.



1 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's analysis of Sonos's  
2 2005 system in the context of Asserted Claim 1 of the '885 Patent suffers from a number of flaws,  
3 many of which are applicable to claim limitations 1.4 and 1.10 of Asserted Claim 1 of the '966  
4 Patent as well – including that his analysis is premised on both an incorrect interpretation of what  
5 is required to qualify as a “zone scene” and an inaccurate and misleading characterization of  
6 Sonos's 2005 system functionality and the evidence related thereto.

7 621. For instance, in his section discussing Sonos's 2005 system and claim limitation  
8 1.9 of Asserted Claim 1 of the '885 Patent, Dr. Schonfeld relies exclusively on the functionality in  
9 Sonos's 2005 system for controlling and playing back audio on an ad-hoc “zone group,” as  
10 demonstrated by the following paragraph of Dr. Schonfeld's Opening Report:

11 In the Sonos System, a user may select a zone group for playback using the “Zones  
12 pane” and the playback controls to cause the Zone Players to operate as a  
13 synchronous playback group, as described below in the Sonos System user manual.  
14 The user may select the Zone Player or group in the “zones pane” on the lefthand  
15 side using the desktop controller (shown below) or the handheld controller CR100.  
16 The desktop controller or handheld controller provides an instruction to the Zone  
17 Players to operate in accordance with those saved groups (“zone scenes”) to  
18 synchronously play back media. The groups include user defined groups as  
19 discussed supra as well as groups that are provided by the Sonos System, such as  
20 “Party Mode,” which may play music synchronously through all the Zone Players  
21 in the system.

22 Schonfeld Op. Report at ¶ 441 (citing to Sonos 2005 User Guide at 3-7 - 3-15). However, for  
23 similar reasons to those I explained in my '885 Rebuttal Report regarding Asserted Claim 1 of  
24 the '885 Patent, this theory is flawed for several reasons.

25 622. First, because a “zone group” is not a “zone scene” for all of the reasons explained  
26 above, this alleged functionality cannot meet the claimed requirement of receiving a “request to  
27 invoke” a “zone scene.”

28 623. Second, even setting aside the other fundamental differences between a “zone  
group” and a “zone scene,” neither the user action of selecting a previously-created “zone group”  
in the “Zones” pane/menu of the “desktop controller” or “handheld controller” nor the user action  
of using the “playback controls” for the selected “zone group” amounts to a “request to invoke”  
the “zone group.” This is because a “zone group” was automatically invoked at the time of its

1 creation and then only remained in existence for the temporary period of time during which it was  
2 in an active state, so there would have never been a period of time during which a “zone group”  
3 was created and in existence but was in an inactive, uninvoked state such that a user was presented  
4 with an option to “request to invoke” the “zone group.” Thus, at the time that a “zone group” was  
5 selected in the “Zones” pane/menu of the “desktop controller” or “handheld controller,” such a  
6 “zone group” would have already been “invoked” and thus such a selection was not a “request to  
7 invoke” the “zone group.” Rather, the user would have been selecting an already-invoked “zone  
8 group” for purposes of controlling that already-invoked “zone group,” not “request[ing] to invoke”  
9 the “zone group.” And for similar reasons, any subsequent user action in the user interface with  
10 respect to the “zone group,” such as an interaction with the “playback controls,” also would not  
11 amount to a “request to invoke” the “zone group.”

12 624. Dr. Schonfeld’s position to the contrary appears to be based on an interpretation of  
13 the term “invoke” that ties the act of “invok[ing]” a “zone scene” comprising a user-customized,  
14 pre-saved group of “zone players” to the time when the group of “zone players” is actually caused  
15 to play back audio, but in my opinion, this is not how a POSITA would understand the term  
16 “invoke” in the context of the claim language and specification of the ’966 Patent. Rather, a  
17 POSITA would understand that the act of “invok[ing]” a “zone scene” comprising a user-  
18 customized, pre-saved group of “zone players” refers to the point in time when the pre-saved group  
19 of “zone players” is activated for synchronous playback such that the “zone players” enter a mode  
20 in which they are controlled and used as part of the group, which is distinct from the act of initiating  
21 playback on that group of “zone players” (although in some scenarios it is possible that playback  
22 could be automatically initiated as a result of the “zone scene” being invoked). *See, e.g.,* ’407  
23 Provisional at App’x A, p. 4 (explaining that when a “Zone Scene” is invoked at a time when “no  
24 music is playing in any Zone – then the zones will simply link in a group” without playing any  
25 music); 6/6/2022 Lambourne Dep. Tr. at 59:5-16 (inventor of the ’885 and ’966 Patents testifying  
26 that a “zone scene” does not have to start actively playing audio “at that moment when the group  
27 is invoked”); D.I. 309 (the Court describing “standalone mode” as a mode in which a “zone player”  
28 “operate[s] individually” as contrasted with a mode in which the “zone player” is “being controlled



1 as part of [a] group” and never mentioning active playback as a required aspect of “standalone  
2 mode”). And as explained previously, the “zone groups” in Sonos’s 2005 system were  
3 automatically invoked at the time of their creation and then only remained in existence for the  
4 temporary period of time during which they were in an active state, so there would have never  
5 been a period of time during which a “zone group” was created and in existence but was in an  
6 inactive, uninvoked state such that a user was presented with an option to “request to invoke” the  
7 “zone group” as required by Asserted Claim 1 of the ’966 Patent.

8 625. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that the Sonos  
9 controllers in Sonos’s 2005 system did not have the functional capability required by limitations  
10 1.4 / 1.10 of Asserted Claim 1 of the ’966 Patent.

11 **viii. Sonos’s 2005 System Did Not Meet Limitation 1.11**

12 626. Limitation 1.11 of Asserted Claim 1 of the ’966 Patent requires the “computing  
13 device” to be encoded with executable “program instructions” that cause the computing device to  
14 perform the following function(s):

15 [1.11] based on the third request, causing the first zone player to transition from operating  
16 in the standalone mode to operating in accordance with the first predefined grouping of  
17 zone players such that the first zone player is configured to coordinate with at least the  
18 second zone player to output media in synchrony with output of media by at least the  
19 second zone player.

20 627. In my opinion, Sonos’s 2005 system did not meet this requirement.

21 628. As explained above, the evidence I have reviewed establishes that Sonos’s 2005  
22 system only provided users with the ability to form and use ad-hoc “zone groups,” which are not  
23 the claimed “zone scenes” for the reasons explained above. Thus, for this reason, the Sonos  
24 controllers in Sonos’s 2005 system did not have any functional capability for invoking a “zone  
25 scene” – let alone the required functional capability for “based on the third request [to invoke the  
26 first zone scene], causing the first zone player to transition from operating in the standalone mode  
27 to operating in accordance with the first predefined grouping of zone players such that the first  
28 zone player is configured to coordinate with at least the second zone player to output media in  
synchrony with output of media by at least the second zone player.”

1           629. Further, in the context of the surrounding claim language, a POSITA would  
2 understand that the “computing device” is required to carry out the functionality of limitation 1.11  
3 at a time when (i) the “first zone scene” and “second zone scene” have been created and are both  
4 in existence and (ii) the “first zone player” is “operating in a standalone mode,” which means that  
5 the “first zone scene” and the “second zone scene” both must be in an inactive state at the time  
6 that this functionality is carried out (otherwise, the “first zone player” could not be in “standalone  
7 mode”). However, in Sonos’s 2005 system, it was not possible for an ad-hoc “zone group” to exist  
8 in an inactive state in which the members of the “zone group” could be used for individual  
9 playback while the “zone group” remained available for selection by a user; rather, an ad-hoc  
10 “zone group” only remained in existence for the temporary period of time during which it was  
11 activated, and once deactivated, the “zone group” would cease to exist. Moreover, while a Sonos  
12 controller was capable of displaying the hard-coded “All Zones-Party Mode” option at a time when  
13 a ZonePlayer was operating in standalone mode, (i) the hard-coded “All Zones-Party Mode” option  
14 was not a “zone scene” for the reasons explained above and (ii) the hard-coded “All Zones-Party  
15 Mode” option alone cannot possibly meet the claimed requirement of displaying “representations”  
16 of multiple overlapping “zone scenes.”

17           630. Further yet, in the context of the surrounding claim language, a POSITA would  
18 understand that the “computing device” is required to carry out the functionality of limitation 1.11  
19 at some point in time that is later than when it received the “request to create [the] first zone scene”  
20 and the “first zone scene” was created based on that “request.” Indeed, at a minimum, there must  
21 be a time gap between the time when the “computing device” received the “request to create [the]  
22 first zone scene” and the time when the “computing device” carries out the functionality of  
23 limitation 1.11 that is long enough to allow (i) the “first zone scene” to be created, (ii) the  
24 “computing device” to display “representation[s]” of the “first zone scene” as well as the “second  
25 zone scene,” and (iii) a user to view the displayed “representation[s]” of the “first zone scene” and  
26 “second zone scene” and then input the “request to invoke the first zone scene.” However, in  
27 Sonos’s 2005 system, a Sonos Controller would have only received a single request that served to  
28 both create and invoke a “zone group,” and this single request is what would have triggered the

1 Sonos controller to cause the selected ZonePlayers to begin coordinating with one another for  
2 synchronous playback in accordance with the “zone group” – a Sonos Controller would have never  
3 received an initial “request to create” a “zone group” followed by some later, separate “request to  
4 invoke” the “zone group.” This is because an ad-hoc “zone group” was automatically invoked at  
5 the time of its creation and then only remained in existence for the temporary period of time during  
6 which it was in an active state, after which time the “zone group” would cease to exist. Thus, in  
7 Sonos’s 2005 system, there would have never been a period of time during which a “zone group”  
8 was created and in existence but was in an inactive, uninvoked state such that a user was presented  
9 with an option to “request to invoke” the “zone group” that would subsequently trigger the Sonos  
10 controller to cause the selected ZonePlayers to begin coordinating with one another for  
11 synchronous playback in accordance with the “zone group.”

12 631. Despite this clear evidence establishing that the Sonos controllers and ZonePlayers  
13 in Sonos’s 2005 system did not have any “zone scenes” capability, Dr. Schonfeld nevertheless  
14 opines that claim limitation 1.11 of Asserted Claim 1 of the ’966 Patent was either disclosed or  
15 rendered obvious by Sonos’s 2005 system. *See* Schonfeld Op. Report at ¶ 978. However, I find  
16 Dr. Schonfeld’s opinions regarding Sonos’s 2005 system and claim limitation 1.11 of Asserted  
17 Claim 1 of the ’966 Patent to be flawed for several reasons.

18 632. As an initial matter, the entirety of Dr. Schonfeld’s discussion regarding Sonos’s  
19 2005 system and claim limitations 1.4 and 1.11 of Asserted Claim 1 of the ’966 Patent is shown  
20 in the screenshot below from Dr. Schonfeld’s Opening Report:

21  
22 (xi) *Limitation 1.11 based on the third request, causing the first zone*  
23 *player to transition from operating in the standalone mode to*  
24 *operating in accordance with the first predefined grouping of zone*  
25 *players such that the first zone player is configured to coordinate*  
*with at least the second zone player to output media in synchrony*  
*with output of media by at least the second zone player.*

26 978. *See supra* ’885 claim 1, Limitation 1.10.

27 633. As these screenshots demonstrate, Dr. Schonfeld is relying exclusively on his prior  
28 discussion of Sonos’s 2005 system in the context of certain claim limitations of the ’885 Patent.

1 However, the Asserted Claims of the '966 Patent are directed to a different type of device than  
2 Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller"  
3 as opposed to a "zone player"), claim limitation 1.11 of Asserted Claim 1 of the '966 Patent uses  
4 different claim language than the limitations of Asserted Claim 1 of the '885 Patent, and Dr.  
5 Schonfeld fails to provide any further explanation as to how his prior discussion of Sonos's 2005  
6 system in the context of the claim limitations of Asserted Claim 1 of the '885 Patent applies to  
7 claim limitation 1.11 of Asserted Claim 1 of the '966 Patent. In fact, Dr. Schonfeld fails to even  
8 state whether his opinion is that claim limitation 1.11 of Asserted Claim 1 of the '966 Patent was  
9 actually *disclosed* by Sonos's 2005 system versus whether his opinion is that claim limitation 1.11  
10 of Asserted Claim 1 of the '966 Patent was only *rendered obvious* by the Sonos's 2005 system.  
11 And along similar lines, Dr. Schonfeld never articulates what he considers to be the "third request  
12 to invoke the first zone scene" or what functionality satisfies the "causing" limitation in Sonos's  
13 2005 system. For these reasons, I disagree that Dr. Schonfeld's barebones discussion of claim  
14 limitation 1.11 of Asserted Claim 1 of the '966 Patent amounts to a detailed and complete  
15 statement of all opinions to be expressed and the basis and reasons therefor, which I understand to  
16 be the governing standard for expert reports, and that barebones discussion has prejudiced my  
17 ability to fully discern, assess, and respond to his opinions regarding claim limitation 1.11 of  
18 Asserted Claim 1 of the '966 Patent.<sup>24</sup>

19 634. With that said, as I have discussed above in Section XV.A.1.i as well as in my '885  
20 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's analysis of Sonos's  
21 2005 system in the context of Asserted Claim 1 of the '885 Patent suffers from a number of flaws,  
22 many of which are applicable to claim limitation 1.11 of Asserted Claim 1 of the '966 Patent as  
23 well – including that his analysis is premised on both an incorrect interpretation of what is required  
24 to qualify as a "zone scene" and an inaccurate and misleading characterization of Sonos's 2005  
25 system functionality and the evidence related thereto.

26 635. For instance, in his section discussing Sonos's 2005 system and claim limitation

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27 <sup>24</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

1 1.10 of Asserted Claim 1 of the '885 Patent, which is directed to player-side functionality for  
2 “transitioning from operating in the standalone mode to operating in accordance with” a selected  
3 “zone scene,” Dr. Schonfeld again relies on the functionality in Sonos’s 2005 system for  
4 controlling and playing back audio on an ad-hoc “zone group.” This is demonstrated by the  
5 following paragraph of Dr. Schonfeld’s Opening Report:

6 As described in the previous claim limitation, a user may select a zone group for  
7 playback using the “Zones pane” and the playback controls to cause the Zone  
8 Players to operate as a synchronous playback group, as described below in the  
9 Sonos System user manual. The user may select the Zone Player or group in the  
10 “zones pane” on the left hand side using the desktop controller (shown below) or  
11 the handheld controller CR100. The desktop controller or handheld controller  
12 provides an instruction to the Zone Players to operate in accordance with those  
13 saved groups (“zone scenes”) to synchronously play back media. The groups  
14 include user defined groups as discussed *supra* as well as groups that are provided  
15 by the Sonos System, such as “Party Mode,” which may play music synchronously  
16 through all the Zone Players in the system. The Zone Players will then coordinate  
17 with each other to attempt to provide synchronous playback of media.

18 Schonfeld Op. Report at ¶ 450 (citing to Sonos 2005 User Guide at 3-7 - 3-15).

19 636. However, as an initial matter, the alleged functionality described in this paragraph  
20 fails to amount to a Sonos controller receiving the claimed “request to invoke the first zone scene”  
21 for all of the reasons explained above with respect to limitation 1.10 of Asserted Claim 1 of the  
22 '966 Patent.

23 637. Further, because a “zone group” is not a “zone scene” for all of the reasons  
24 explained above, this alleged functionality cannot meet the claimed requirement of “based on  
25 receiving the third request [to invoke the first zone scene], causing the first zone player to transition  
26 from operating in the standalone mode to operating in accordance with the first predefined  
27 grouping of zone players” of the “first zone scene.”

28 638. Further yet, even setting aside the other fundamental differences between a “zone  
group” and a “zone scene,” neither the user action of selecting a previously-created “zone group”  
in the “Zones” pane/menu of the “desktop controller” or “handheld controller” nor the user action  
of using the “playback controls” for the selected “zone group” amounts to a “request to invoke”  
the “zone group” that triggers the Sonos controller to cause the selected ZonePlayers to begin

1 coordinating with one another for synchronous playback in accordance with the “zone group.”  
2 This is because a “zone group” was automatically invoked at the time of its creation and then only  
3 remained in existence for the temporary period of time during which it was in an active state, so  
4 there would have never been a period of time during which a “zone group” was created and in  
5 existence but was in an inactive, uninvoked state such that a user was presented with an option to  
6 “request to invoke” the “zone group” that would subsequently trigger the Sonos controller to cause  
7 the selected ZonePlayers to begin coordinating with one another for synchronous playback in  
8 accordance with the “zone group.” Instead, at the time that a “zone group” was selected in the  
9 “Zones” pane/menu of the “desktop controller” or “handheld controller,” the “zone group” would  
10 have already been invoked and the ZonePlayers in the “zone group” would have already been  
11 coordinating with one another for synchronous playback in accordance with the “zone group,” so  
12 the “zone group” selection would not have triggered the Sonos controller to cause the selected  
13 ZonePlayers to transition from operating in a standalone mode to operating in accordance with the  
14 “zone group” such that the ZonePlayers begin coordinating with one another for synchronous  
15 playback in accordance with the “zone group.” And for similar reasons, any subsequent user action  
16 in the user interface with respect to the already-invoked “zone group,” such as an interaction with  
17 the “playback controls,” also would not have triggered the Sonos controller to cause the selected  
18 ZonePlayers to transition from operating in a standalone mode to operating in accordance with the  
19 “zone group.”

20 639. As above, Dr. Schonfeld’s position to the contrary appears to be based on an  
21 interpretation of the term “invoke” that ties the act of “invok[ing]” a “zone scene” comprising a  
22 user-customized, pre-saved group of “zone players” to the time when the group of “zone players”  
23 is actually caused to play back audio, but as explained above, this is not how a POSITA would  
24 understand the term “invoke” in the context of the claim language and specification of the ’966  
25 Patent. Rather, a POSITA would understand the act of “invok[ing]” a “zone scene” comprising a  
26 user-customized, pre-saved group of “zone players” to refer to the point in time when the pre-  
27 saved group of “zone players” is activated for synchronous playback such that the “zone players”  
28 enter a mode in which they are controlled and used as part of the group.



640. In his section discussing Sonos's 2005 system and claim limitation 1.10 of Asserted Claim 1 of the '885 Patent, which is directed to player-side functionality for "transitioning from operating in the standalone mode to operating in accordance with" a selected "zone scene," Dr. Schonfeld separately discusses a ZonePlayer's handling of a SetAVTransportURI message for a "zone group." Schonfeld Op. Report at ¶¶ 451-452; *see also id.* at ¶¶ 442-443. Thus, although far from clear, it appears that Dr. Schonfeld may also be asserting that a Sonos controller's transmission of a SetAVTransportURI message for a "zone group" to a ZonePlayer meets limitation 1.11 of Asserted Claim 1 of the '966 Patent. If so, I disagree for several reasons.

641. First, because a "zone group" is not a "zone scene" for all of the reasons explained above, a Sonos controller's transmission of a SetAVTransportURI message for a "zone group" to a ZonePlayer would not have caused the ZonePlayer "to transition from operating in the standalone mode to operating in accordance with the first predefined grouping of zone players" of the "first zone scene."

642. Second, as explained above, Dr. Schonfeld already appears to be relying on the Sonos controller's transmission of a SetAVTransportURI message for a new "zone group" for the functionality of "causing an indication of the first zone scene to be transmitted to the first zone player" required by limitation 1.6 of Asserted Claim 1 of the '966 Patent, and based on the surrounding language of Asserted Claim 1 of the '966 Patent, a POSITA would understand that this is a separate function that the "computing device" must carry out *before* it carries out the "causing" function of limitation 1.11 of Asserted Claim 1 of the '966 Patent. Thus, it is not proper for Dr. Schonfeld to rely on this same SetAVTransportURI message to satisfy both the "causing an indication of the first zone scene to be transmitted to the first zone player" requirement of limitation 1.6 and the "causing" requirement of limitation 1.11, which is yet another reason why his opinions are flawed. In fact, any attempt by Dr. Schonfeld to rely on this same SetAVTransportURI message for both the "causing an indication of the first zone scene to be transmitted to the first zone player" requirement of limitation 1.6 of Asserted Claim 1 of the '966 Patent and the "causing" requirement of limitation 1.11 of Asserted Claim 1 of the '966 Patent just further highlights the distinction between a "zone group," which was automatically invoked at the



1 time of its creation and then only remained in existence for the temporary period of time during  
2 which it was in an active state, and a “zone scene,” which requires a user-customized, pre-saved  
3 group of “zone players” that is able to exist in an inactive state while remaining available for  
4 selection by a user so that it can later be “invoked” on demand for synchronous playback.

5 643. Dr. Schonfeld himself appears to recognize these problems with mapping the  
6 SetAVTransportURI message to these two different claimed functions, because in paragraph 442,  
7 he goes on to state that:

8 However, the SetAVTransportURI message may be understood and/or it would  
9 have been obvious to parse that message into two separate messages: (a) a first  
10 message to notify zone players that they have joined a zone group and identify the  
11 group coordinator (meeting the indication limitations); and (b) a second message  
12 that provides the remote channel source (typically the group coordinator) and thus  
13 provides an instruction that results in synchronous playback (the present instruction  
14 limitation). To the extent that this would be a modification of the Sonos System, it  
15 would have been obvious to a POSITA because it allows greater flexibility in  
16 assigning and updating group coordinators and channel sources.

17 Schonfeld Op. Report at ¶ 442. I disagree with this obviousness theory for the reasons explained  
18 below, but Dr. Schonfeld’s acknowledgement here that Sonos’s 2005 system would have to be  
19 modified to meet the requirements of the claimed “zone scene” technology further supports my  
20 opinion that a ZonePlayer in Sonos’s 2005 system did not have the functional capability required  
21 by limitation 1.11 of Asserted Claim 1 of the ‘966 Patent.

22 644. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that the Sonos  
23 controllers in Sonos’s 2005 system did not have the functional capability required by limitation  
24 1.11 of Asserted Claim 1 of the ‘966 Patent.

25 **ix. Asserted Claim 1 Would Not Have Been Obvious Based on**  
26 **Sonos’s 2005 System in view of the Secondary References**  
27 **Identified by Dr. Schonfeld**

28 645. In his Opening Report, Dr. Schonfeld does not offer any opinion that Asserted  
Claim 1 of the ‘966 Patent is anticipated by Sonos’s 2005 System. *See* Schonfeld Op. Report at  
Section XII.A, ¶¶ 963-978. Instead, Dr. Schonfeld only opines that Asserted Claim 1 of the ‘966  
Patent is rendered obvious based on Sonos’s 2005 system. *Id.*

646. In particular, Dr. Schonfeld's section for the '966 Patent as compared to Sonos's 2005 system is entitled "'966 Claims Are Obvious Based On [Sonos's 2005 System]," and in that section, Dr. Schonfeld states that "[i]n my opinion, Claim 1 is rendered obvious based on the Sonos System in view of the general knowledge of a POSITA, the Sonos Forums, Nourse, and Millington, as described below." Schonfeld Op. Report at Section XII.A, ¶ 965. Dr. Schonfeld then includes a sub-section entitled "Claim 1 Is Obvious Based On [Sonos's 2005 System]" where he lists out each limitation of Asserted Claim 1 of the '966 Patent, although Dr. Schonfeld does not provide any analysis of how the limitations of Asserted Claim 1 of the '966 Patent are allegedly disclosed or rendered obvious by "the Sonos System in view of the general knowledge of a POSITA, the Sonos Forums, Nourse, and Millington." *Id.* at Section X11.A.2, ¶¶ 966-978. Instead, Dr. Schonfeld merely refers back to the limitation-by-limitation analysis that he set forth in connection with his opinion that Asserted Claim 1 of the '885 Patent is rendered obvious based on Sonos's 2005 system. *Id.*

647. However the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a "zone player"), Asserted Claim 1 of the '966 Patent requires a different combination of claim limitations than Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior obviousness analysis of Asserted Claim 1 of the '885 Patent applies to Asserted Claim 1 of the '966 Patent. As a result, Dr. Schonfeld fails to articulate how or why even a single claim limitation of Asserted Claim 1 of the '966 Patent would be "rendered obvious based on the Sonos System in view of the general knowledge of a POSITA, the Sonos Forums, Nourse, and Millington" as he states – let alone how or why the entire combination of claim limitations of Asserted Claim 1 of the '966 Patent would be "rendered obvious based on the Sonos System in view of the general knowledge of a POSITA, the Sonos Forums, Nourse, and Millington." For these reasons, I disagree that Dr. Schonfeld has provided a detailed and complete statement of all opinions to be expressed and the basis and reasons therefor, which I understand to be the governing standard for expert reports, and Dr. Schonfeld's failure to do so has prejudiced my ability to fully discern, assess, and respond to his

obviousness opinions regarding Asserted Claim 1 of the '966 Patent.<sup>25</sup>

648. Nevertheless, in the sub-sections below, I have made my best effort to assess and respond to Dr. Schonfeld's unsupported and conclusory opinion that Asserted Claim 1 of the '966 Patent is "rendered obvious based on the Sonos System in view of the general knowledge of a POSITA, the Sonos Forums, Nourse, and Millington."

**(a) Sonos's 2005 System in view of the General Knowledge  
of a POSITA**

649. At paragraph 965 of his Opening Report, Dr. Schonfeld states his opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on Sonos's 2005 system in view of the "general knowledge of a POSITA." Schonfeld Op. Report at ¶ 965; *see also id.* at ¶ 6. I disagree – in my opinion, claim 1 of the '966 Patent is not rendered obvious by Sonos's 2005 system in view of the "general knowledge of a POSITA," and Dr. Schonfeld's opinion to the contrary is flawed for several reasons.

650. As an initial matter, Dr. Schonfeld fails to set forth any bases or reasoning for his stated opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on Sonos's 2005 system in view of the "general knowledge of a POSITA." *See* Schonfeld Op. Report at ¶¶ 966-978. Instead, Dr. Schonfeld relies exclusively on the obviousness analysis that he set forth in connection with his opinion that Asserted Claim 1 of the '885 Patent is rendered obvious by Sonos's 2005 system in view of the "general knowledge of a POSITA," without providing any explanation as to how that prior obviousness analysis of Asserted Claim 1 of the '885 Patent applies to Asserted Claim 1 of the '966 Patent. *Id.* For this reason alone, I find Dr. Schonfeld's opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on Sonos's 2005 system in view of the "general knowledge of a POSITA" to be deficient.

651. Additionally, as I previously explained in my '885 Rebuttal Report, Dr. Schonfeld's obviousness analysis that he provides in connection with his opinion that Asserted Claim 1 of the '885 Patent is rendered obvious by Sonos's 2005 system in view of the "general knowledge of a

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<sup>25</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies in his Opening Report, I expressly reserve my right to respond.

1 POSITA” suffers from a number of flaws, many of which are applicable to the Asserted Claims of  
2 the ’966 Patent as well.

3 652. First, even if Sonos’s 2005 system were to be modified in the various ways  
4 proposed by Dr. Schonfeld, such a hypothetical system still would not achieve either the specific  
5 player-side “zone scenes” functionality required by Asserted Claim 1 of the ’885 Patent or the  
6 specific controller-side “zone scenes” functionality required by Asserted Claim 1 of the ’966  
7 Patent that Dr. Schonfeld failed to analyze.

8 653. Second, Dr. Schonfeld’s proposed modifications to Sonos’s 2005 system are all  
9 nothing more high-level suggestions – such as “add[ing] overlapping groups” – and Dr. Schonfeld  
10 has failed to provide any explanation as to how these proposed modifications to Sonos’s 2005  
11 system would have actually been implemented, let alone how the proposed modifications would  
12 have achieved either the specific player-side “zone scenes” functionality required by Asserted  
13 Claim 1 of the ’885 Patent or the specific controller-side “zone scenes” functionality required by  
14 Asserted Claim 1 of the ’966 Patent that Dr. Schonfeld failed to analyze. Moreover, in my opinion,  
15 implementing Dr. Schonfeld’s high-level suggestions would have required substantial, non-  
16 obvious modifications to the grouping functionality of Sonos’s 2005 system at the time.

17 654. Third, I disagree that a POSITA in 2005-06 would have been motivated to modify  
18 Sonos’s 2005 system in any one of the ways proposed by Dr. Schonfeld – let alone all of the  
19 different ways proposed by Dr. Schonfeld. As discussed above, Sonos’s 2005 system already  
20 included ad-hoc “zone group” functionality that allowed ZonePlayers to be grouped together on  
21 demand for synchronous playback (albeit in a different way than the claimed “zone scenes”  
22 functionality). The evidence I have seen shows that this ad-hoc “zone group” functionality was being  
23 praised throughout the industry. *See, e.g.*, GOOG-SONOS-NDCA-00108095 at 365 (disclosing that  
24 Sonos’s system in 2006 was “pure heaven” and touting that “[y]ou can perform some pretty  
25 sophisticated stunts using that remote, like directing different streams of music to different rooms,  
26 linking several rooms so that they all play the same music....”); SONOS-SVG2-00234176 at 76-77  
27 (Feb. 3, 2005 PC Magazine article stating Sonos’s ZP100 “is the first digital audio hub we can  
28 recommend without reservation. . . . It can play the same music throughout the house, perfectly

1 synchronized. Even though that may seem drop-dead simple, other hubs don't do it. And you can join  
2 multiple rooms to play the same music . . . on the fly."); SONOS-SVG2-00227422 (March 22, 2005  
3 PC Magazine article stating the same); SONOS-SVG2-00234162 at 62-64 (Feb. 24, 2005 Wall Street  
4 Journal article stating "[t]he Sonos system is easily the best music-streaming product I have seen and  
5 tested," and "[i]t's the Lexus of the category" at least because "[t]he system works in multiple rooms  
6 of a home, allowing you to play . . . the same songs, in each room simultaneously . . . you can group  
7 the 'Zones,' so several receive the same music simultaneously."); SONOS-SVG2-00234165 (listing  
8 various "[a]wards, accolades and achievements" by Sonos in 2004-2006); SONOS-SVG2-00234171  
9 (same); SONOS-SVG2-00234181 (2005 Playlist Magazine article stating "[y]ou can control each  
10 ZonePlayer independently of the others, or you can sync all of them for full-house entertainment. The  
11 result? The music you want, in whatever rooms you want -- the whole-house-music thing done right .  
12 . . . Where the Sonos system stands out from similar systems is in its zone management. Using the  
13 Controller's Zone menu, you can easily link zones to play the same music in sync . . ."); SONOS-  
14 SVG2-00234182 at 84 (Dec. 2005 LA Audio file article stating "[u]sing the Link Zone feature, users  
15 can link some or all of the listening zones to a single group. This is particularly useful when having a  
16 party or when one might be moving from one room to another within the house and would like to hear  
17 the same music."), at 86 ("Having seen so many options for distributing audio in today's homes, I can't  
18 think of a better all-around product than the Sonos Digital Music System."). And conversely, I have  
19 not seen any evidence suggesting that a POSITA in 2005-06 would have recognized any particular  
20 problem with Sonos's ad-hoc "zone group" functionality that would have led such a POSITA to  
21 consider a different mechanism for grouping ZonePlayers in Sonos's 2005 system on demand for  
22 synchronous playback -- let alone would have led such a POSITA to implement the specific "zone  
23 scenes" functionality that is claimed in the '885 and '966 Patents. For at least these reasons, I disagree  
24 that a POSITA in 2005-06 would have been motivated to replace the existing ad-hoc "zone group"  
25 functionality of Sonos's 2005 system with the claimed "zone scenes" functionality, particularly in view  
26 of the time, effort, and cost that would have been required to overhaul the grouping mechanism of  
27 Sonos's 2005 system.

28 655. Nevertheless, in his Opening Report, Dr. Schonfeld offers several unsupported,

1 conclusory theories as to why it a POSITA in 2005-06 would have allegedly found it obvious to  
2 modify Sonos's 2005 system in the various ways proposed by Dr. Schonfeld. However, in addition  
3 to the fact that Dr. Schonfeld failed to articulate any reasoning as to why a POSITA would have  
4 been motivated to modify Sonos's 2005 system to achieve the specific controller-side "zone  
5 scenes" functionality required by Asserted Claim 1 of the '966 Patent, I disagree with Dr.  
6 Schonfeld's theories for the reasons explained below.

7 656. Starting with paragraph 328 of his Opening Report, Dr. Schonfeld states as follows:

8 Nonetheless, as I discuss further below, there is evidence of why a POSITA in 2005-  
9 2006 would have been motivated to modify the Sonos System with other references.  
10 As Dr. Almeroth acknowledged, the Sonos System was released in January 2005  
11 and allowed for a so-called "ad-hoc grouping process" which was time consuming.  
12 Almeroth Rebuttal Report at [285], [288]. Accordingly, at least as of January 2005,  
13 a POSITA using Sonos's system would have been motivated to find an alternative  
14 to this time consuming grouping process, including pre-defined or saved groups (the  
15 claimed "zone scenes"). Indeed, Sonos users indicated as much on Sonos forums,  
16 and former Sonos employee Graham Farrar testified that Sonos employees  
17 themselves monitored these Sonos forums.

18 Schonfeld Op. Report at ¶ 328; *see also id.* at ¶ 358. I disagree.

19 657. As an initial matter, my previous statement that Sonos's ad-hoc "zone group"  
20 functionality could sometimes be "time consuming" was based on the description of that  
21 functionality in the *specification* of the '885 and '966 Patents, and the fact that the inventor of the  
22 '885 and '966 Patents considered the ad-hoc grouping mechanism of Sonos's 2005 system to be  
23 "time consuming" does not establish that a *POSITA in 2005-06* would have recognized this as a  
24 problem with the ad-hoc "zone group" functionality of Sonos's 2005 system.<sup>26</sup> Moreover, even if  
25 a POSITA in 2005-06 were to have recognized this as a problem with the ad-hoc "zone group"  
26 functionality of Sonos's 2005 system, there is no evidence that this would have motivated a  
27 POSITA in 2005-06 to modify Sonos's ad-hoc "zone group" functionality at all given the benefits  
28 of Sonos's ad-hoc "zone group" functionality – let alone would have motivated a POSITA in 2005-  
06 to replace Sonos's ad-hoc "zone group" functionality with the specific "zone scenes"

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<sup>26</sup> Likewise, the fact that a very small handful of Sonos users submitted comments about the existing ad-hoc "zone group" functionality of Sonos's 2005 system does not establish that a POSITA in 2005-06 would have found that "zone group" functionality to be some "time consuming" to the point that it needed to be replaced with a different grouping mechanism.



1 functionality required by either Asserted Claim 1 of the '885 Patent or Asserted Claim 1 of the  
2 '966 Patent.

3 658. Turning next to paragraphs 382-383 of his Opening Report, Dr. Schonfeld states  
4 as follows:

5 [T]he claim limitation discloses nothing more than overlapping speaker groups,  
6 which would have been obvious to a person of skill in the art at the time. Indeed, the  
7 Sonos System already disclosed having groups and also having a "Party Mode" /  
8 "All Zones" group, which would necessarily encompass any groups already created  
9 and therefore disclose overlapping groups. A person of skill in the art would have  
10 been motivated to add overlapping groups because Sonos's own marketing materials  
11 touted the benefits of playing any song, in any room, from anywhere, including the  
12 ability to "simultaneously play the same song or different songs in as many rooms  
13 as you'd like."

14 A person of skill in the art would have recognized that by allowing a user to create  
15 speaker groups, those groups may either (1) allow overlapping group membership  
16 or (2) not allow overlapping group membership. Given that allowing overlapping  
17 group membership may be attractive to certain users because there was a recognized  
18 "need for dynamic control of the audio players as a group," it would have been  
19 obvious to select allowing overlapping group membership when implementing  
20 speaker groups. '885 Pat at 1:30-34.

21 Schonfeld Op. Report at ¶¶ 382-383. I disagree with this theory for several reasons.

22 659. As an initial matter, Sonos's marketing materials touting the ability to  
23 "simultaneously play the same song or different songs in as many rooms as you'd like" was a  
24 description of capabilities that *already existed* Sonos's 2005 system. As such, this statement  
25 informing potential customers that Sonos's 2005 system already provided the ability to  
26 "simultaneously play the same song or different songs in as many rooms as you'd like" would not  
27 have motivated a POSITA in 2005-06 to modify Sonos's 2005 system to modify Sonos's ad-hoc  
28 "zone group" functionality at all – let alone would have motivated a POSITA in 2005-06 to replace  
Sonos's ad-hoc "zone group" functionality with the specific "zone scenes" functionality required  
by either Asserted Claim 1 of the '885 Patent or Asserted Claim 1 of the '966 Patent. .

660. Further, I disagree with Dr. Schonfeld's suggestion that this would have simply  
been matter of whether or not to "allow overlapping group membership" – Sonos's 2005 system  
was employing a distinctly different type of grouping technology that would not even allow for  
"overlapping group membership" because "zone groups" were temporary, ad-hoc groups that were



1 automatically activated at the time they were created. As such, it would not have been possible to  
2 simply modify Sonos's existing grouping technology to "allow overlapping group membership" –  
3 a completely different grouping technology would have been required. And in any event,  
4 modifying Sonos's 2005 system to "add overlapping groups" would not have achieved the specific  
5 "zone scenes" functionality required by either Asserted Claim 1 of the '885 Patent or Asserted  
6 Claim 1 of the '966 Patent.

7 661. Further yet, the fact that the inventor of the '966 Patent recognized a "need for  
8 dynamic control of the audio players as a group" does not establish that a POSITA in 2005-06  
9 would have recognized that same need, and Dr. Schonfeld fails to identify any other evidence to  
10 support his statement that this need would have been recognized by a POSITA in 2005-06. And  
11 regardless, even if a POSITA in 2005-06 were to have recognized this need, I fail to see how that  
12 would have motivated a POSITA in 2005-06 to modify Sonos's ad-hoc "zone group" functionality  
13 at all given that it already allowed for "dynamic control of the audio players as a group" – let alone  
14 would have motivated a POSITA in 2005-06 to replace Sonos's ad-hoc "zone group" functionality  
15 with the specific "zone scenes" functionality required by either Asserted Claim 1 of the '885 Patent  
16 or Asserted Claim 1 of the '966 Patent.

17 662. Still further, Dr. Schonfeld fails to identify any evidence in support of his statement  
18 that "allowing overlapping group membership may be attractive to certain users," but even if this  
19 were true, Dr. Schonfeld fails to explain how or why this would have motivated a POSITA in  
20 2005-06 to replace Sonos's ad-hoc "zone group" functionality with the specific "zone scenes"  
21 functionality required by either Asserted Claim 1 of the '885 Patent or Asserted Claim 1 of the  
22 '966 Patent, particularly in view of all of the other evidence showing that Sonos's ad-hoc "zone  
23 group" functionality was being praised at the time. *See, e.g.,* GOOG-SONOS-NDCA-00108095 at  
24 365 (disclosing that Sonos's system in 2006 was "pure heaven" and touting that "[y]ou can perform  
25 some pretty sophisticated stunts using that remote, like directing different streams of music to different  
26 rooms, linking several rooms so that they all play the same music....").

27 663. Turning next to paragraphs 418-419 of his Opening Report, Dr. Schonfeld cites to  
28 a section of Mr. Lambourne's "Zone Scenes" design specification entitled "What happens to the

1 Music that's already playing when a Zone Scene is started" and then states as follows:

2 [T]he inventor wrote that there were only three possibilities for the behavior when  
3 a speaker is added to a group . . . . However, there are actually four possibilities  
4 for actions when a speaker is added to a group, not three. A person of skill in the  
5 art would have found it obvious to choose from one of these possibilities—stop  
6 music, choose music, adopt the music of the only playing speaker, and continue  
7 playing the “standalone” music—when adding a speaker to a group. These are a  
8 limited number of obvious design options.

9 Schonfeld Op. Report at ¶¶ 418-419. I disagree for several reasons.

10 664. As an initial matter, the section of Mr. Lambourne's “Zone Scenes” design  
11 specification that Dr. Schonfeld cites here was discussing potential options for how to handle the  
12 playback of media when a previously-created, saved “zone scene” is *invoked* (referred to as  
13 “started” in this disclosure), not how a “zone player” operates “when [it] is added to a group” as  
14 Dr. Schonfeld contends. With that said, I fail to see how the inventor's internal consideration of  
15 different options for how to handle the playback of media when a previously-created, saved “zone  
16 scene” is invoked could possibly provide support for Dr. Schonfeld's opinion that the claimed  
17 “zone scenes” technology would have been obvious to a POSITA in 2005-06. If fact, if anything,  
18 this supports the opposite conclusion.

19 665. Moreover, I disagree with Dr. Schonfeld's suggestion that configuring a  
20 ZonePlayer to “continue playing ‘standalone’ music” after being added to a “zone group” would  
21 have been recognized as an “obvious design option[]” by a POSITA in 2005-06 – Sonos's 2005  
22 system was employing a distinctly different type of grouping technology that only allowed a user  
23 to create temporary, ad-hoc “zone groups” that were automatically activated and could never exist  
24 in an inactivate state, and configuring a ZonePlayer to “continue playing ‘standalone’ music” after  
25 being added to a “zone group” would have been directly contrary to the principle of operation of  
26 that ad-hoc “zone group” functionality. For this reason, a POSITA in 2005-06 would not have  
27 even considered configuring a ZonePlayer to “continue playing ‘standalone’ music” after being  
28 added to a “zone group” as a possible option, nor would a POSITA in 2005-06 have been motivated  
to modify Sonos's 2005 system to implement this change, as that would have required a completely  
different grouping technology.

666. Turning lastly to paragraphs 442 and 444 of his Opening Report, Dr. Schonfeld states as follows:

For example, the first Zone Player receives a SetAVTransportURI SOAP action with a Rincon group URI that meets the claimed “indication” and identifies the group to join (selected joinee group). However, the SetAVTransportURI message may be understood and/or it would have been obvious to parse that message into two separate messages: (a) a first message to notify zone players that they have joined a zone group and identify the group coordinator (meeting the indication limitations); and (b) a second message that provides the remote channel source (typically the group coordinator) and thus provides an instruction that results in synchronous playback (the present instruction limitation). To the extent that this would be a modification of the Sonos System, it would have been obvious to a POSITA because it allows greater flexibility in assigning and updating group coordinators and channel sources.

\* \* \* \*

For the reasons discussed above e.g., with respect to Limitation 1.6, it would have been obvious to combine the Sonos System with the knowledge of a POSITA, and a POSITA would have found it straightforward to use multiple messages to implement different actions and/or user requests. Doing so would have allowed a POSITA greater flexibility in assigning and updating group coordinators and channel sources. And as discussed above, Sonos System in combination with the knowledge of a POSITA discloses this claim limitation, at least because it would have been obvious to parse the Sonos System SetAVTransportURI message into two separate messages: (a) a first message to notify zone players that they have joined a zone group and identify the group coordinator (meeting the indication limitations); and (b) a second message the Sonos System, it would have been obvious to a POSITA because it allows greater flexibility in assigning and updating group coordinators and channel sources.

Schonfeld Op. Report at ¶¶ 442, 444. I disagree.

667. As an initial matter, Dr. Schonfeld fails to cite any evidence showing that a POSITA in 2005-06 would have recognized a desire or need to either “use multiple messages to implement different actions and/or user requests” related to the “zone group” technology in Sonos’s 2005 system or to have “greater flexibility in assigning and updating group coordinators and channel sources” in Sonos’s 2005 system. Moreover, even if it were “straightforward to use multiple messages to implement different actions and/or user requests” and/or if a POSITA in 2005-06 were to have recognized a desire for “greater flexibility in assigning and updating group coordinators and channel sources,” I fail to see how that would have motivated a POSITA in 2005-06 to modify Sonos’s 2005 system to incorporate any form of “zone scenes” functionality – let alone would have

1 motivated a POSITA in 2005-06 to modify Sonos's 2005 system in order to incorporate the specific  
2 "zone scenes" functionality required by either Asserted Claim 1 of the '885 Patent or Asserted  
3 Claim 1 of the '966 Patent.

4 668. Fourth and finally, because there is no evidence that a POSITA in 2005-06 would  
5 have been motivated to modify Sonos's 2005 system in the many ways proposed by Dr. Schonfeld,  
6 it appears that Dr. Schonfeld has used the asserted claims as a roadmap to reach his conclusion  
7 that a POSITA would have found the claimed invention obvious based on Sonos's 2005 system,  
8 which I understand to be improper.

9 669. Thus, for these reasons, it is my opinion that Asserted Claim 1 of the '966 Patent is  
10 not rendered obvious by Sonos's 2005 system alone.

11 **(b) Sonos's 2005 System in view of Sonos Forums**

12 670. At paragraph 965 of his Opening Report, Dr. Schonfeld states his opinion that  
13 Asserted Claim 1 of the '966 Patent is rendered obvious based on Sonos's 2005 system in view of  
14 his "Sonos Forums" reference. Schonfeld Op. Report at ¶ 965; *see also id.* at ¶ 6. I disagree – in  
15 my opinion, Asserted Claim 1 of the '966 Patent is not rendered obvious by Sonos's 2005 system  
16 in view of the Sonos Forums, and Dr. Schonfeld's opinion to the contrary is flawed for several  
17 reasons.

18 671. As an initial matter, Dr. Schonfeld fails to set forth any bases or reasoning for his  
19 stated opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on Sonos's 2005  
20 system in view of the Sonos Forums. See Schonfeld Op. Report at ¶¶ 966-978. Instead, Dr.  
21 Schonfeld relies exclusively on the obviousness analysis that he set forth in connection with his  
22 opinion that Asserted Claim 1 of the '885 Patent is rendered obvious by Sonos's 2005 system in  
23 view of the Sonos Forums, without providing any explanation as to how that prior obviousness  
24 analysis of Asserted Claim 1 of the '885 Patent applies to Asserted Claim 1 of the '966 Patent. *Id.*  
25 For this reason alone, I find Dr. Schonfeld's opinion that Asserted Claim 1 of the '966 Patent is  
26 rendered obvious based on Sonos's 2005 system in view of the Sonos Forums to be deficient.

27 672. Additionally, as I previously explained in my '885 Rebuttal Report, Dr. Schonfeld's  
28 obviousness analysis that he provides in connection with his opinion that Asserted Claim 1 of the

'885 Patent is rendered obvious by Sonos's 2005 system in view of the Sonos Forums suffers from a number of flaws, many of which are applicable to the Asserted Claims of the '966 Patent as well.

673. First, as discussed above, the Sonos Forums reference, as a whole, does not qualify as prior art under §102 (a), (b), or (f). *Supra* Section XIII.C.

674. Second, even if Sonos's 2005 system were to be modified and combined with the Sonos Forums reference in the manner proposed by Dr. Schonfeld, such a hypothetical system still would not achieve either the specific player-side "zone scenes" functionality required by Asserted Claim 1 of the '885 Patent or the specific controller-side "zone scenes" functionality required by Asserted Claim 1 of the '966 Patent that Dr. Schonfeld failed to analyze.

675. Indeed, in his obviousness analysis for Asserted Claim 1 of the '885 Patent, Dr. Schonfeld relies solely on the following two posts from the Sonos Forums:

### Macro / presets

16 years ago · 61 replies · 15122 views

22 September 2005



JeffT Trending Lyricist I · 20 replies

Just got the intro bundle, and I am impressed. I did a search and did not find this suggested, but I would save Zone links as favorites. With only 2 ZPs it is not a problem yet, but when I add more it maybe. I would like to setup say Morning mode for the units I want in the morning and a preset volume between the units. Another example I would have 2 party modes, Summer and Winter. The Summer mode would include the deck speakers and the Winter mode would not. Also it would be nice to have playlists or radio station associated with each mode. So when I get up I press Morning the DI Chill radio station plays.

Jeff

### Virtual Zones and Zone Grouping

17 years ago · 190 replies · 45480 views

27 February 2005



theboyg Avid Contributor I · 22 replies

This "link/unlink" business is really cumbersome - and not a joy to use which goes against the ease of use of the rest of the system.

Why can't I have a virtual zone - ie a zone called "Downstairs" - and I can group all my downstairs zones into this. Then I dont have to keep manually linking/unlinking multiple zones everytime.

PLEASE !

G.

1 Schonfeld Op. Report ¶ 360 (citing Farrar Dep. Exs. 6, 8); *see also id.* at ¶¶ 363, 364. Dr. Schonfeld  
2 never even goes on to explain how the foregoing posts from the Sonos Forums purportedly satisfy  
3 the specific player-side “zone scenes” functionality of Asserted Claim 1 of the ’885 Patent – let  
4 alone the specific controller-side “zone scenes” functionality of Asserted Claim 1 of the ’966  
5 Patent – but regardless, I disagree that the foregoing posts disclose or suggest the controller-side  
6 “zone scenes” functionality of Asserted Claim 1 of the ’966 Patent.

7 676. Indeed, as an initial matter, the foregoing posts’ high-level discussion of a “mode” or  
8 a “virtual zone” fails to disclose or suggest any particular functionality for creating a “mode” or a  
9 “virtual zone,” let alone the claimed functionality whereby a “computing device” that is “serving as a  
10 controller for a networked media playback system comprising a first zone player and at least two other  
11 zone players” functions to (a) “receiv[e] a first request to create a first zone scene comprising a first  
12 predefined grouping of zone players including at least the first zone player and a second zone  
13 player that are to be configured for synchronous playback of media when the first zone scene is  
14 invoked” at a time when the “first zone player” is “operating in a standalone mode” (per limitation  
15 1.5 of the ’966 Patent) and then (b) “based on the first request, i) caus[e] creation of the first zone  
16 scene, ii) caus[e] an indication of the first zone scene to be transmitted to the first zone player, and  
17 iii) caus[e] storage of the first zone scene” (per limitation 1.6 of the ’966 Patent).

18 677. Further, the foregoing posts do not disclose any claimed functionality for creating  
19 multiple, overlapping “zone scenes” that comprise at least one common “zone player.” Rather, at  
20 best, the foregoing posts disclose that a user could have “2 party modes, Summer and Winter,”  
21 where “[t]he Summer mode would include the deck speakers and the Winter mode would not.”  
22 Farrar Dep. Exs. 6. However, this post does not say the “Summer” and “Winter” “modes” would  
23 include any common players, nor does it disclose any functionality for how to achieve multiple,  
24 overlapping “modes” that comprise at least one common “zone player.”

25 678. Further yet, the foregoing posts do not disclose or suggest any particular  
26 functionality for presenting previously-created “zone scenes” to a user, let alone the claimed  
27 functionality whereby a “computing device” that is “serving as a controller for a networked media  
28 playback system comprising a first zone player and at least two other zone players” functions to

1 “display[]” “representation[s]” of two overlapping “zone scenes” to a user at a time when the “first  
2 zone player” is “operating in a standalone mode” (which means that the “zone scenes” are both in  
3 an inactive state) so as to enable the user to select between the “zone scenes” for purposes of  
4 requesting invocation of one such “zone scene” on demand.

5 679. Still further, the foregoing posts do not disclose or suggest any particular  
6 functionality for invoking a “mode” or a “virtual zone,” let alone the claimed functionality whereby  
7 a “computing device” that is “serving as a controller for a networked media playback system  
8 comprising a first zone player and at least two other zone players” functions to “receiv[e] a third request  
9 to invoke” a first one of two overlapping “zone scenes” that both include the “first zone player” at a  
10 time when the “computing device” is displaying “representation[s]” of both zone scenes” and the  
11 “first zone player” is “operating in a standalone mode” (which means that the “zone scenes” are  
12 both in an inactive state), and then “based on the third request, causing the first zone player to  
13 transition from operating in the standalone mode to operating in accordance with the first predefined  
14 grouping of zone players such that the first zone player is configured to coordinate with at least the  
15 second zone player to output media in synchrony with output of media by at least the second zone  
16 player,” as required by claim limitation 1.11 of the ’966 Patent). And along similar lines, the  
17 foregoing posts also do not disclose or suggest the claimed functionality whereby the “computing  
18 device” thereafter functions to “receiv[e] a fourth request to invoke” a second one of two overlapping  
19 “zone scenes” at a time when the first one of the two overlapping “zone scenes” is invoked such that  
20 the group members of the first “zone scene” are “configured to coordinate” with one another “to play  
21 back media in synchrony,” and then “based on the fourth request, causing the first zone player to (a)  
22 cease to operate in accordance with the first predefined grouping of zone players such that the first  
23 zone player is no longer configured to coordinate with at least the second zone player to output  
24 media in synchrony with output of media by at least the second zone player and (b) begin to operate  
25 in accordance with the second predefined grouping of zone players such that the first zone player  
26 is configured to coordinate with at least the third zone player to output media in synchrony with  
27 output of media by at least the third zone player,” as required by Asserted Claim 2 of the ’966  
28 Patent.



680. Still further yet, the foregoing posts do not disclose or suggest any particular functionality for storing a “mode” or a “virtual zone,” let alone the claimed functionality whereby a “computing device” that is “serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players” causes a “zone scene” to be stored at a “zone player” that is a group member of the “zone scene,” as required by Asserted Claim 4 of the ’966 Patent. In this way, the foregoing posts appear to express nothing more than mere hope that Sonos would someday invent a “zone scene” functionality that had not been achieved before. *See, e.g.*, GOOG-SONOS-WDTX-INV-00015877 at 877 (“I would like to setup say Morning mode ....”); GOOG-SONOS-WDTX-INV-00015870 at 870 (“Why can’t I have a virtual zone .... PLEASE!”).<sup>27</sup>

681. Dr. Schonfeld also attempts to rely on Mr. Lambourne’s testimony to conclude that “the users requesting ‘virtual zones’ and ‘macro’ or ‘preset’ groups disclosed the ‘zone scene’ concept.” Schonfeld Op. Report at ¶ 361. However, Mr. Lambourne testified that his claimed “zone scene” functionality addressed the need of the foregoing users; not that the foregoing users disclosed the claimed “zone scene” functionality. Lambourne Dep. Tr. at 131:3-7 (“Did you invention address the concerns of these users through adding Zone Scenes? ... THE WITNESS: Yes. My invention would describe the need described here.”). In fact, as discussed above, Mr. Lambourne already memorialized his thoughts on his “zone scene” concept at least 4 months before the foregoing post by user “JeffT.” *Supra* Sections XIII.C, XI.B.

682. Because the Sonos Forums reference fails to disclose or suggest a “computing device” that is programmed with the controller-side “zone scenes” functionality required by the Asserted Claims of the ’966 Patent, even if a POSITA in 2005-06 were to modify Sonos’s 2005 system to incorporate the discussion in the identified user posts from Sonos Forums, it is my

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<sup>27</sup> With respect to the February 27, 2005 “Virtual Zones and Zone Grouping” post, Dr. Schonfeld asserts that “two different ‘party modes, Summer and Winter,’ [] overlapped because ‘[t]he Summer mode would include the deck speakers and the Winter mode would not.’” Schonfeld Op. Report ¶ 363. I disagree. This post just says that “[t]he Summer mode would include the deck speakers and the Winter mode would not.” It says nothing about the two “modes” having any speakers in common.

1 opinion that a Sonos controller in such a modified Sonos system still would not have the “zone  
2 scenes” capability required by the Asserted Claims of the ’966 Patent.

3 683. Third, Dr. Schonfeld has failed to provide any explanation as to how Sonos’s 2005  
4 system would have actually been modified to combine it with the subject matter discussed in the  
5 identified user posts from Sonos Forums – let alone how that alleged combination would have  
6 achieved the claimed invention.

7 684. Fourth, I disagree that these two isolated Sonos Forum posts demonstrate that a  
8 POSITA in 2005-06 would have been motivated to replace Sonos’s ad-hoc “zone group”  
9 functionality with the specific “zone scenes” functionality required by either Asserted Claim 1 of  
10 the ’885 Patent or Asserted Claim 1 of the ’966 Patent (which go well beyond what is discussed  
11 in the Sonos Forums posts), particularly in view of all of the other evidence showing that the  
12 existing ad-hoc “zone group” functionality of Sonos’s 2005 system was being praised at the time,  
13 as well as the time, effort, and cost that would have been required to overhaul the grouping mechanism  
14 of Sonos’s 2005 system.

15 685. I have also seen other Sonos Forum posts contradicting Dr. Schonfeld’s theory that  
16 a POSITA would have been motivated to replace Sonos’s ad-hoc “zone group” functionality with  
17 the claimed “zone scene” functionality in view of the identified user posts from the Sonos Forums.  
18 For instance, as explained above, I have seen other user posts from the Sonos Forums casting doubt  
19 as to how overlapping “zone scenes” would have worked in Sonos’s system. For example, even  
20 after the claimed conception date, a post from “Majik” on April 18, 2006 suggests that there were  
21 concerns about potential “side-effects” if “zones [can] be allowed to be in more than one group.”  
22 GOOG-SONOS-WDTX-INV-00015870 at 871. I have also seen evidence from other Sonos  
23 threads suggesting that, even in 2016, users thought overlapping “zone scenes” would have been  
24 “logically impossible” to implement in Sonos’s system. SONOS-SVG2-00226916 at 916. Given  
25 this skepticism, it is my opinion that a POSITA would have been dissuaded from modifying  
26 Sonos’s 2005 system in view of the identified user posts from the Sonos Forums.

27 686. Fifth and finally, because there is no evidence that a POSITA in 2005-06 would  
28 have been motivated to modify Sonos’s 2005 system in view of the identified user posts from the

1 Sonos Forums, it appears that Dr. Schonfeld has used the asserted claims as a roadmap to reach his  
2 conclusion that a POSITA would have found the claimed invention obvious based on Sonos's 2005  
3 system in combination with the Sonos Forums, which I understand to be improper.

4 687. Thus, for these reasons, it is my opinion that Asserted Claim 1 of the '966 Patent is  
5 not rendered obvious by Sonos's 2005 system in combination with the Sonos Forums.

6 **(c) Sonos's 2005 System in view of Nourse**

7 688. At paragraph 965 of his Opening Report, Dr. Schonfeld states his opinion that  
8 Asserted Claim 1 of the '966 Patent is rendered obvious based on Sonos's 2005 system in view of  
9 Nourse. Schonfeld Op. Report at ¶ 965; *see also id.* at ¶ 6. I disagree – in my opinion, Asserted  
10 Claim 1 of the '966 Patent is not rendered obvious by Sonos's 2005 system in view of Nourse, and  
11 Dr. Schonfeld's opinion to the contrary is flawed for several reasons.

12 689. As an initial matter, Dr. Schonfeld fails to set forth any bases or reasoning for his  
13 stated opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on Sonos's 2005  
14 system in view of Nourse. *See* Schonfeld Op. Report at ¶¶ 966-978. Instead, Dr. Schonfeld relies  
15 exclusively on the obviousness analysis that he set forth in connection with his opinion that  
16 Asserted Claim 1 of the '885 Patent is rendered obvious by Sonos's 2005 system in view of Nourse,  
17 without providing any explanation as to how that prior obviousness analysis of Asserted Claim 1  
18 of the '885 Patent applies to Asserted Claim 1 of the '966 Patent. *Id.* For this reason alone, I find  
19 Dr. Schonfeld's opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on  
20 Sonos's 2005 system in view of Nourse to be deficient.

21 690. Additionally, as I previously explained in my '885 Rebuttal Report, Dr. Schonfeld's  
22 obviousness analysis that he provides in connection with his opinion that Asserted Claim 1 of the  
23 '885 Patent is rendered obvious by Sonos's 2005 system in view of Nourse suffers from a number  
24 of flaws, many of which are applicable to the Asserted Claims of the '966 Patent as well.

25 691. First, Nourse was cited on the face of the '966 Patent, which shows that Nourse  
26 was considered by the USPTO during prosecution of the '966 Patent and that the '966 Patent  
27 (including Asserted Claim 1) was allowed to issue over Nourse. *See* '966 Patent at 4. Since the  
28 USPTO already considered Nourse, I understand that Dr. Schonfeld and Google have the added

1 burden of overcoming the deference that is due to a qualified government agency, such as the  
2 USPTO, that is presumed to have properly done its job based on its expertise in interpreting  
3 references, its understanding of the level of ordinary skill in the art, and its duty to issue only valid  
4 patents. However, it is my opinion that Dr. Schonfeld failed to satisfy this added burden.

5 692. Second, Nourse fails to disclose or suggest the claimed “zone scene” functionality  
6 that was missing from Sonos’s 2005 system.

7 693. As discussed above, Nourse discloses a conventional “centralized speaker system”  
8 that includes a “computer” connected to one or more “central stations” referred to “master  
9 station(s)” or “master control unit(s)” that are “used to monitor and control respective sets of  
10 speakers connected thereto,” where each “central station” is connected to its respective set of  
11 speakers via (i) a tone generator/mixer that “preferably supplies a 35 Hz or similar tone that is not  
12 audible as the power signal for the speakers,” (ii) one or more amplifiers that are “collocated” with  
13 the “central station” and amplify the output of the tone generator/mixer, and (iii) a respective set  
14 of “remote units” that are each hard-wired between the “central station” and a given one of the  
15 speakers. *See, e.g.*, Nourse at Abstract, FIG. 1, 1:17-21, 2:17-40, 3:19-41, 4:14-42.

16 694. However, as an initial matter, the conventional “centralized speaker system” of  
17 Nourse – which is primarily designed to serve as a “public address system” – is not a “*networked*  
18 media playback system” comprising “zone players.” Indeed, the connections between the “central  
19 station” and the “remote units” for the “respective set of speakers” comprise conventional “audio  
20 lines” (i.e., speaker wires), not a data network as a POSITA would understand that term, and  
21 neither the “speakers” nor the “remote units” of Nourse are “zone players” for at least the reasons  
22 that such devices (i) are not *data network* devices that are configured to *process* and output audio  
23 and (ii) did not have the capability to change their “configur[ation]” as it related to audio playback  
24 in order to transition between “standalone mode” and grouped mode. *Id.* For this reason alone,  
25 Nourse fails to disclose or suggest any “computing device” that is “serving as a controller for a  
26 networked media playback system comprising a first zone player and at least two other zone  
27 players,” let alone a “computing device” that has the functional capability to carry out all of the  
28 other controller functions for a “network media playback system” that are required by claim

1 limitations 1.4-1.11 of Asserted Claim 1 of the '966 Patent.

2 695. Further, even setting aside the fact that Nourse's "centralized speaker system" is not  
3 a "networked media playback system" comprising "zone players," there is no device within  
4 Nourse's "centralized speaker system" that has the specific controller-side "zone scenes"  
5 functionality required by claim limitations 1.4-1.11 of Asserted Claim 1 of the '966 Patent or the  
6 additional limitations of Asserted Claims 2, 4, 6, and 8 of the '966 Patent.

7 696. As explained above, Dr. Schonfeld does not offer any opinions as to whether Nourse  
8 discloses or suggests any of the claim limitations of Asserted Claim 1 of the '966 Patent. Instead,  
9 Dr. Schonfeld only discusses Nourse in connection with claim limitations 1.6-1.8 of Asserted  
10 Claim 1 of the '885 Patent, which require the claimed "first zone player" to be programmed with  
11 the functional capability to (i) "receiv[e], from a network device over a data network, a first  
12 indication that the first zone player has been added to a first zone scene" while the "first zone  
13 player" is "operating in a standalone mode," (ii) "receiv[e], from the network device over the data  
14 network, a second indication that the first zone player has been added to a second zone scene"  
15 while the "first zone player" is "operating in a standalone mode," and (iii) "after receiving the first  
16 and second indications, continu[e] to operate in the standalone mode until a given one of the first  
17 and second zone scenes has been selected for invocation." Schonfeld Op. Report at ¶¶ 367-369,  
18 384, 436-437. However, nothing in Dr. Schonfeld's discussion of Nourse in the context of claim  
19 limitations 1.6-1.8 of Asserted Claim 1 of the '885 Patent alters my opinion that Nourse's  
20 "centralized speaker system" did not have *any* functional capability for creating or invoking a  
21 "zone scene" – let alone the specific controller-side "zone scenes" functionality required by claim  
22 limitations 1.4-1.11 of Asserted Claim 1 of the '966 Patent or the additional limitations of Asserted  
23 Claims 2, 4, 6, and 8 of the '966 Patent.

24 697. The underlying premise of Dr. Schonfeld's theories regarding Nourse appears to be  
25 that a "group" of "speakers" as disclosed in Nourse amounts to a "zone scene." *See* Schonfeld Op.  
26 Report at ¶¶ 385-395, 424-431. I disagree for several reasons.

27 698. First, Nourse's "group" does not comprise a user-customized, pre-saved group of  
28 "zone players" as required by a "zone scene," because neither the "speakers" nor the "remote

1 units” of Nourse are “zone players.”

2 699. Second, Nourse’s “group” is not a “zone scene” for the additional reason that the  
3 “speakers” in a “group” do not become “*configured for synchronous playback*” when the “group”  
4 is selected. In fact, Nourse never discloses or even suggests that the “speakers” in a “group” would  
5 engage in “synchronous playback,” let alone that the “configur[ation]” of the “speakers” would  
6 change when a “group” selected in order to achieve “synchronous playback.” And for this same  
7 reason, Nourse likewise fails to disclose or suggest that the “speakers” in a “group” are “configured  
8 to coordinate . . . to output media in synchrony with” one another when the “group” is selected, as  
9 required by claim limitation 1.11 of Asserted Claim 1 of the ’966 Patent under Dr. Schonfeld’s  
10 apparent mapping. To the contrary, because Nourse’s “speakers” lack data network and data  
11 processing capability, a POSITA would understand that the “speakers” have the exact same  
12 configuration both before and after a “group” is selected.

13 700. Third, Nourse fails to disclose or suggest any capability for a user to assign a  
14 thematic name to a “group,” which fails to meet the additional “according to a common theme”  
15 requirement of Google's proposed construction of a “zone scene.”

16 701. Further, even setting aside these differences between Nourse’s “group” and a “zone  
17 scene,” Dr. Schonfeld fails to identify any functionality of Nourse’s “centralized speaker system”  
18 that would satisfy the other aspects of Asserted Claim 1 of the ’966 Patent under Dr. Schonfeld’s  
19 apparent mapping.

20 702. For example, Dr. Schonfeld fails to identify any functionality of Nourse’s  
21 “centralized speaker system” that amounts to a “computing device” causing an “indication” of a  
22 “group” to be transmitted to a “speaker,” as required by claim limitations 1.6 and 1.8 of Asserted  
23 Claim 1 of the ’966 Patent under Dr. Schonfeld’s apparent mapping.

24 703. As another example, Dr. Schonfeld fails to identify any functionality of Nourse’s  
25 “centralized speaker system” that amounts to a “computing device” “displaying a representation  
26 of the first [‘group’] and a representation of the second [‘group’]” and then “while displaying the  
27 representation of the first [‘group’] and the representation of the second [‘group’], receiving a third  
28 request to invoke the first [‘group’],” as required by claim limitations 1.9-1.10 of Asserted Claim

1 of the '966 Patent under Dr. Schonfeld's apparent mapping.

704. As yet another example, Dr. Schonfeld fails to identify any functionality of Nourse's "centralized speaker system" that amounts to a "computing device" receiving a "request to invoke" a "group," and then based on that "request," causing a first "speaker" to "transition from operating in the standalone mode to operating in accordance with [a] first predefined grouping of ['speakers'] such that the first ['speaker'] is configured to coordinate with at least [a second 'speaker'] to output media in synchrony with output of media by at least the second ['speaker'], as required by claim limitations 1.10-1.11 of Asserted Claim 1 of the '966 Patent under Dr. Schonfeld's apparent mapping. In this respect, I disagree that POSITA would consider Nourse's "group page" functionality to satisfy the requirements of these claim limitations.

705. As still example, Dr. Schonfeld fails to identify any functionality of Nourse's "centralized speaker system" that amounts to a "computing device" receiving a "request to invoke" a second "group" at a time when a first "group" is invoked such that the "speakers" in the first "group" are "configured to coordinate" with one another "to play back media in synchrony," and then based on the "request," causing a first "speaker" to "(a) cease to operate in accordance with the first ['group'] such that the first ['speaker'] is no longer configured to coordinate with at least the second ['speaker'] to output media in synchrony with output of media by at least the second ['speaker'] and (b) begin to operate in accordance with the second ['group'] such that the first ['speaker'] is configured to coordinate with at least [a third 'speaker' in the second 'group'] to output media in synchrony with output of media by at least the third ['speaker'], as required by Asserted Claim 2 of the '966 Patent under Dr. Schonfeld's apparent mapping.

706. As a further example, Dr. Schonfeld fails to identify any functionality of Nourse's "centralized speaker system" that amounts to a "computing device" causing a "group" to be stored at a "speaker" in the "group," as required by Asserted Claim 4 of the '966 Patent under Dr. Schonfeld's apparent mapping.

707. Thus, even if a POSITA in 2005-06 were to modify and combine Sonos's 2005 system with the identified functionality of Nourse's "centralized speaker system" in the manner proposed by Dr. Schonfeld, such a hypothetical system still would not achieve either the specific



1 player-side “zone scenes” functionality required by Asserted Claim 1 of the ’885 Patent or the  
2 specific controller-side “zone scenes” functionality required by the Asserted Claims of the ’966  
3 Patent that Dr. Schonfeld failed to analyze.

4 708. Third, Dr. Schonfeld has failed to provide any explanation as to how Sonos’s 2005  
5 system would have actually been modified to combine it with the identified functionality of  
6 Nourse’s “centralized speaker system” – let alone how that alleged combination would have  
7 achieved the claimed invention.

8 709. Fourth, I disagree that a POSITA in 2005-06 would have been motivated to modify  
9 Sonos’s 2005 system to combine it with the identified functionality of Nourse’s “centralized  
10 speaker system.” As discussed above, Sonos’s 2005 system already included ad-hoc “zone group”  
11 functionality that allowed the ZonePlayers to be grouped together on demand for synchronous  
12 playback (albeit in a different way than the claimed “zone scenes” functionality). The evidence I have  
13 seen shows that this ad-hoc “zone group” functionality was being praised throughout the industry. *See,*  
14 *e.g.*, GOOG-SONOS-NDCA-00108095 at 365 (disclosing that Sonos’s system in 2006 was “pure  
15 heaven” and touting that “[y]ou can perform some pretty sophisticated stunts using that remote, like  
16 directing different streams of music to different rooms, linking several rooms so that they all play the  
17 same music....”); SONOS-SVG2-00234176 at 76-77 (Feb. 3, 2005 PC Magazine article stating  
18 Sonos’s ZP100 “is the first digital audio hub we can recommend without reservation. . . . It can play  
19 the same music throughout the house, perfectly synchronized. Even though that may seem drop-dead  
20 simple, other hubs don’t do it. And you can join multiple rooms to play the same music . . . on the  
21 fly.”); SONOS-SVG2-00227422 (March 22, 2005 PC Magazine article stating the same); SONOS-  
22 SVG2-00234162 at 62-64 (Feb. 24, 2005 Wall Street Journal article stating “[t]he Sonos system is  
23 easily the best music-streaming product I have seen and tested,” and “[i]t’s the Lexus of the category”  
24 at least because “[t]he system works in multiple rooms of a home, allowing you to play . . . the same  
25 songs, in each room simultaneously . . . . you can group the ‘Zones,’ so several receive the same music  
26 simultaneously.”); SONOS-SVG2-00234165 (listing various “[a]wards, accolades and achievements”  
27 by Sonos in 2004-2006); SONOS-SVG2-00234171 (same); SONOS-SVG2-00234181 (2005 Playlist  
28 Magazine article stating “[y]ou can control each ZonePlayer independently of the others, or you can

1 sync all of them for full-house entertainment. The result? The music you want, in whatever rooms you  
2 want -- the whole-house-music thing done right . . . . Where the Sonos system stands out from similar  
3 systems is in its zone management. Using the Controller's Zone menu, you can easily link zones to  
4 play the same music in sync . . . ."); SONOS-SVG2-00234182 at 84 (Dec. 2005 LA Audio file article  
5 stating "[u]sing the Link Zone feature, users can link some or all of the listening zones to a single  
6 group. This is particularly useful when having a party or when one might be moving from one room  
7 to another within the house and would like to hear the same music."), at 86 ("Having seen so many  
8 options for distributing audio in today's homes, I can't think of a better all-around product than the  
9 Sonos Digital Music System."). And conversely, I have not seen any evidence suggesting that a  
10 POSITA in 2005-06 would have recognized any particular problem with Sonos's ad-hoc "zone group"  
11 functionality that would have led such a POSITA to consider a different mechanism for grouping  
12 ZonePlayers in Sonos's 2005 system on demand for synchronous playback -- let alone would have led  
13 such a POSITA to implement the identified functionality of Nourse's "centralized speaker system."  
14 For at least these reasons, I disagree that a POSITA in 2005-06 would have been motivated to replace  
15 the existing ad-hoc "zone group" functionality of Sonos's 2005 system with the identified functionality  
16 of Nourse's "centralized speaker system," particularly in view of the time, effort, and cost that would  
17 have been required to overhaul the grouping mechanism of Sonos's 2005 system.

18 710. Nevertheless, in his Opening Report, Dr. Schonfeld offers several unsupported,  
19 conclusory theories as to why it a POSITA in 2005-06 would have allegedly found it obvious to  
20 combine Sonos's 2005 system with the identified functionality of Nourse's "centralized speaker  
21 system" in the specific manner proposed by Dr. Schonfeld. However, in addition to the fact that Dr.  
22 Schonfeld failed to provide any analysis as to how or why the combination of Sonos's 2005 and  
23 Nourse achieves the specific controller-side "zone scenes" functionality required by Asserted  
24 Claim 1 of the '966 Patent, I disagree with Dr. Schonfeld's theories for the reasons explained  
25 below.

26 711. For instance, at paragraph 384 of his Opening Report, Dr. Schonfeld says that a  
27 POSITA would have been motivated to combine Sonos's 2005 system with Nourse because  
28 Nourse is "analogous to the '885 patent" and "reasonably pertinent to the problem to be solved by

1 the '885 patent . . . .” Schonfeld Op. Report at ¶ 384. However, these generic statements fail to  
2 establish why a POSITA in 2005-06 would have been motivated to make any modification to  
3 Sonos’s 2005 system at all – let alone why a POSITA in 2005-06 would have been motivated to  
4 combine Sonos’s 2005 system with the identified functionality of Nourse’s “centralized speaker  
5 system” in the specific manner proposed by Dr. Schonfeld.

6 712. At paragraph 384 of his Opening Report, Dr. Schonfeld also states as follows:

7 Nourse teaches additional means for improving the user experience by allowing a  
8 user to add a playback device to multiple groups. Nourse at 3:57-4:5. It would have  
9 been desirable to allow a user to have a particular zone player join multiple groups  
10 (e.g., the kitchen and patio could be grouped for outside entertainment, and the  
11 kitchen and living room could be grouped for inside entertainment). Having a  
12 speaker join multiple groups would increase the number of customized  
13 combinations a user could configure in their home, as the Sonos System and  
14 Webpage recognize as an important feature.

15 Schonfeld Op. Report at ¶ 384.

16 713. Dr. Schonfeld fails to support this statement that “[i]t would have been desirable to  
17 allow a user to have a particular zone player join multiple groups” with any evidence, but even if  
18 a POSITA in 2005-06 were to have recognized that this functionality was “desirable,” I have not  
19 seen any evidence that this recognition would have motivated such a POSITA to replace the  
20 existing ad-hoc “zone group” functionality of Sonos’s 2005 system with the identified  
21 functionality of Nourse – particularly given that (i) the existing ad-hoc “zone group” functionality  
22 of Sonos’s 2005 system already provided a mechanism for grouping ZonePlayers for synchronous  
23 playback that was being praised and (ii) Sonos’s 2005 system was a networked audio system  
24 comprising “zone players” having data networking and data processing capability whereas Nourse  
25 is directed to a conventional “centralized speaker system” comprising a “central station,” a tone  
26 generator/mixer, amplifiers, remote units, and hard-wired speakers. Moreover, even if a POSITA  
27 in 2005-06 were to have recognized that it was “desirable” to modify Sonos’s 2005 system to  
28 “allow a user to have a particular zone player join multiple groups” as Dr. Schonfeld contends,  
this still would not have motivated a POSITA to combine Sonos’s 2005 system with the identified  
functionality of Nourse’s “centralized speaker system” or otherwise modify Sonos’s 2005 system  
in the specific ways that would have been required in order to achieve either the specific player-

1 side “zone scenes” functionality required by Asserted Claim 1 of the ’885 Patent or the specific  
2 controller-side “zone scenes” functionality required by the Asserted Claims of the ’966 Patent that  
3 Dr. Schonfeld failed to analyze.

4 714. I have also seen evidence of affirmative reasons why a POSITA would not have  
5 been motivated to combine Sonos’s 2005 system with the identified functionality of Nourse’s  
6 “centralized speaker system.” For instance, as explained above, Nourse discloses a type of  
7 conventional “centralized speaker system” that includes passive, hard-wired speakers. In contrast,  
8 Sonos’s 2005 system was a networked audio system comprising network-enabled “zone players”  
9 that was specifically intended to provide a new paradigm for home audio that improved upon the  
10 many deficiencies of conventional hard-wired systems like Nourse’s “centralized speaker system.”  
11 *See, e.g.*, GOOG-SONOS-NDCA-00108095 at 364 (disclosing that “[a] wholehouse sound system  
12 usually involves hiring somebody to run wires through your walls, install custom speakers and  
13 program a wireless remote control,” but with Sonos ZonePlayer, “you’re spared the inwall wiring,  
14 the installer’s visit and the second mortgage.”), 467 (“This means that you do not need to go to the  
15 effort of installing cables, and you can relocate your ZonePlayer(s) easily.”). Additionally, as  
16 explained above, Nourse’s “centralized speaker system” was primary designed to serve as a public  
17 address system, whereas Sonos’s 2005 system was primary designed to serve as home audio  
18 system. Given these differences between Sonos’s 2005 system and Nourse’s “centralized speaker  
19 system,” it is my opinion that a POSITA would have been dissuaded from modifying Sonos’s 2005  
20 system to combine it with the identified functionality of Nourse’s “centralized speaker system.”

21 715. Along similar lines, Dr. Schonfeld’s opinion that a POSITA would have been  
22 motivated to modify Sonos’s 2005 system to combine it with the identified functionality of  
23 Nourse’s “centralized speaker system” is contradicted by the fact that such a modification would  
24 have fundamentally altered the principles of operation of Sonos’s 2005 system given that Sonos’s  
25 2005 system was a *decentralized* system built around ZonePlayers having data networking and  
26 data processing capability whereas Nourse is directed to “*centralized* speaker system” that was  
27 built around centralized computer that was used to control passive, hard-wired speakers.

28 716. Finally, because there is no evidence that a POSITA in 2005-06 would have been

1 motivated to modify Sonos's 2005 system to combine it with the identified functionality of  
2 Nourse's centralized speaker system," it appears that Dr. Schonfeld has used the asserted claims  
3 as a roadmap to reach his conclusion that a POSITA would have found the claimed invention  
4 obvious based on Sonos's 2005 system in combination with Nourse, which I understand to be  
5 improper. *Compare* Schonfeld Op. Report, ¶ 384 ("It would have been desirable to allow a user  
6 to have a particular zone player join multiple groups (e.g., the kitchen and patio could be grouped  
7 for outside entertainment, and the kitchen and living room could be grouped for inside  
8 entertainment). Having a speaker join multiple groups would increase the number of customized  
9 combinations a user could configure in their home, as the Sonos System and Webpage recognize  
10 as an important feature.") with '966 Patent, 8:62-67 ("Expanding this idea further, a Zone Scene  
11 can be set to create multiple sets of linked zones. For example, a scene creates 3 separate groups  
12 of zones, the downstairs zones would be linked together, the upstairs zones would be linked  
13 together in their own group, and the outside zones (in this case the patio) would move into a group  
14 of its own."), 2:18-24 ("There is a need for dynamic control of the audio players as a group. With  
15 a minimum manipulation, the audio players may be readily grouped. In a traditional multi-zone  
16 audio system, the audio players have to be adjusted one at a time, resulting in an inconvenient and  
17 non-homogenous audio environment.").

18 717. Thus, for these reasons, it is my opinion that Asserted Claim 1 of the '966 Patent is  
19 not rendered obvious by Sonos's 2005 system in combination with Nourse.

20 **(d) Sonos's 2005 System in view of Millington**

21 718. At paragraph 965 of his Opening Report, Dr. Schonfeld states his opinion that  
22 Asserted Claim 1 of the '966 Patent is rendered obvious based on Sonos's 2005 system in view of  
23 Millington. Schonfeld Op. Report at ¶ 965; *see also id.* at ¶ 6. I disagree – in my opinion, Asserted  
24 Claim 1 of the '966 Patent is not rendered obvious by Sonos's 2005 system in view of Millington,  
25 and Dr. Schonfeld's opinion to the contrary is flawed for several reasons.

26 719. As an initial matter, Dr. Schonfeld fails to set forth any bases or reasoning for his  
27 stated opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on Sonos's 2005  
28 system in view of Millington. *See* Schonfeld Op. Report at ¶¶ 966-978. Instead, Dr. Schonfeld

1 relies exclusively on the obviousness analysis that he set forth in connection with his opinion that  
2 Asserted Claim 1 of the '885 Patent is rendered obvious by Sonos's 2005 system in view of  
3 Millington, without providing any explanation as to how that prior obviousness analysis of  
4 Asserted Claim 1 of the '885 Patent applies to Asserted Claim 1 of the '966 Patent. *Id.* For this  
5 reason alone, I find Dr. Schonfeld's opinion that Asserted Claim 1 of the '966 Patent is rendered  
6 obvious based on Sonos's 2005 system in view of Millington to be deficient.

7 720. Additionally, as I previously explained in my '885 Rebuttal Report, Dr. Schonfeld's  
8 obviousness analysis that he provides in connection with his opinion that Asserted Claim 1 of the  
9 '885 Patent is rendered obvious by Sonos's 2005 system in view of Millington suffers from a  
10 number of flaws, many of which are applicable to the Asserted Claims of the '966 Patent as well.

11 721. First, Millington was cited on the face of the '966 Patent, which shows that  
12 Millington was considered by the USPTO during prosecution of the '966 Patent and that the '966  
13 Patent (including Asserted Claim 1) was allowed to issue over Millington. *See* '966 Patent at 5  
14 (citing to U.S. Pat. No. 8,234,395, which is a U.S. counterpart to the Millington Canadian patent  
15 relied upon by Dr. Schonfeld). Since the USPTO already considered Millington, I understand that  
16 Dr. Schonfeld and Google have the added burden of overcoming the deference that is due to a  
17 qualified government agency, such as the USPTO, that is presumed to have properly done its job  
18 based on its expertise in interpreting references, its understanding of the level of ordinary skill in  
19 the art, and its duty to issue only valid patents. However, it is my opinion that Dr. Schonfeld  
20 failed to satisfy this added burden.

21 722. Second, Millington fails to disclose or suggest the claimed "zone scene"  
22 functionality that was missing from Sonos's 2005 system, which makes sense given my  
23 understanding that the ad-hoc "zone group" functionality implemented in Sonos's 2005 system  
24 was based on the grouping technology that was disclosed in Millington, a patent application filed  
25 by Sonos that lists Mr. Millington as the named inventor.

26 723. As discussed above, Millington discloses a "network audio system" that includes  
27 (i) "zone players," which are data network devices that are configured to process and output audio,  
28 and (ii) "user interface modules" that are configured to control the "zone players" (i.e., controllers).

1 See, e.g., Millington at 4, FIGs. 1-3. As disclosed in Millington, each of these “zone players” is  
2 capable of operating in a standalone mode in which the “zone player” is configured for individual  
3 audio playback, and a “user interface module” can also be used to group “zone players” together  
4 into a “synchrony group” comprising a set of “zone players” that are configured to “play the same  
5 audio program synchronously” by coordinating with one another over a data network. *Id.* at 6-11;  
6 see also *id.* at 13-48. Millington further discloses that “[i]n the network[ed] audio system 10, the  
7 synchrony groups are not fixed” and “[u]sers can enable them to be established and modified  
8 dynamically” by using a “user interface module” to cause one “zone player” to “join” into a  
9 “synchrony group” with another “zone player,” at which point the “zone players” become  
10 configured for synchronous playback as part of the “synchrony group.” *Id.* at 7-9, 10, 14-16, 32-  
11 33. In this respect, Millington describes that when a “zone player” is added to a “synchrony  
12 group,” it will perform various operations in order to configure itself to begin operating as part of  
13 the “synchrony group,” and will no longer be configured for individual audio playback. *Id.*

14 724. However, as with the “zone groups” in Sonos’s 2005 system, the “synchrony groups”  
15 disclosed in Millington were temporary, ad-hoc groups that were automatically activated at the time  
16 of creation and then only remained in existence during the limited time they were activated. This  
17 is different from a “zone scene,” which requires a user-customized, pre-saved group of “zone  
18 players” that is able to exist in an inactive state in which the group members can be used for  
19 individual playback while the pre-saved group remains available for selection by a user so that it  
20 can later be invoked on demand for synchronous playback. Thus, as with the controllers in Sonos’s  
21 2005 system, the “user interface modules” in Millington’s “network audio system” did not have **any**  
22 functional capability for creating or invoking a “zone scene” – let alone the specific controller-  
23 side “zone scenes” functionality required by the Asserted Claims of the ’966 Patent. In this respect,  
24 Millington fails to disclose or suggest claim limitations 1.4-1.11 of Asserted Claim 1 of the ’966  
25 Patent for similar reasons to those summarized above in my discussion of why Sonos’s 2005  
26 system fails to disclose or suggest claim limitations 1.4-1.11 of Asserted Claim 1 of the ’966  
27 Patent, and likewise fails to disclose or suggest the additional limitations of Asserted Claims 2, 4,  
28 6, and 8 of the ’966 Patent for similar reasons to those summarized below in my discussion of why



1 Sonos's 2005 system fails to disclose or suggest the additional limitations of Asserted Claims 2,  
2 4, 6, and 8 of the '966 Patent.

3 725. As explained above, Dr. Schonfeld does not offer any opinions as to whether  
4 Millington discloses or suggests any of the claim limitations of Asserted Claim 1 of the '966  
5 Patent. Instead, Dr. Schonfeld only discusses Millington in connection with claim limitations 1.7-  
6 1.8 of Asserted Claim 1 of the '885 Patent, which require the claimed "first zone player" to be  
7 programmed with the functional capability to "receiv[e], from [a] network device over [a] data  
8 network, a second indication that the first zone player has been added to a second zone scene"  
9 while the "first zone player" is "operating in a standalone mode" and then "after receiving the first  
10 and second indications, continu[e] to operate in the standalone mode until a given one of the first  
11 and second zone scenes has been selected for invocation." Schonfeld Op. Report at ¶¶ 396-400,  
12 420-423. However, nothing in Dr. Schonfeld's discussion of Millington in the context of claim  
13 limitations 1.7-1.8 of Asserted Claim 1 of the '885 Patent alters my opinion that Millington's  
14 "network audio system" system did not have *any* functional capability for creating or invoking a  
15 "zone scene" – let alone the specific controller-side "zone scenes" functionality required by claim  
16 limitations 1.4-1.11 of Asserted Claim 1 of the '966 Patent or the additional limitations of Asserted  
17 Claims 2, 4, 6, and 8 of the '966 Patent.

18 For instance, as an initial matter, Dr. Schonfeld never even offers an opinion that a "synchrony group"  
19 as disclosed in Millington is a "zone scene," let alone explains how such a "synchrony group" meets  
20 all of the requirements of a "zone scene" discussed above – namely a user-customized, pre-saved  
21 group of "zone players" that is able to exist in an inactive state in which the group members can  
22 be used for individual playback while the pre-saved group remains available for selection by a user  
23 so that it can be later invoked on demand for synchronous playback.

24 726. Further, I disagree with Dr. Schonfeld's statement that "Millington discloses  
25 overlapping speaker groups," which is not correct. Schonfeld Op. Report at ¶ 400. Millington's  
26 disclosure makes clear that a "zone player" can only be a member of one "synchrony group" at any  
27 given time. *See, e.g.*, Millington at 6-11. Dr. Schonfeld's statement to the contrary is based on  
28 Millington's disclosure that a given "zone player" could operate as both (i) "member" of a first

1 “synchrony group” and also (ii) an “audio information channel device” (“AICD”) for a second  
2 “synchrony group” that provides “audio and playback timing information and clock timing  
3 information” for the second “synchrony group” but is not configured to play back audio as part of  
4 that second “synchrony group.” Millington at 17; *see also id.* at 19, 27, 29. However, in this  
5 scenario, a POSITA would not consider the “zone player” to be a member of the second  
6 “synchrony group” because the “zone player” would not be configured to play back audio in  
7 synchrony with the other members of the second “synchrony group,” and thus would not consider  
8 this to be a disclosure of “overlapping speaker groups” – let alone overlapping “zone scenes” that  
9 each comprises A user-customized, pre-saved group of “zone players” that is able to exist in an  
10 inactive state in which the group members can be used for individual playback while the pre-saved  
11 group remains available for selection by a user so that it can be later invoked on demand for  
12 synchronous playback.

13 727. In fact, Millington’s own disclosure expressly confirms that a “zone player” serving  
14 only as an AICD for a “synchrony group” is not considered to be a “member” of that “synchrony  
15 group” when it explains that “since ‘synchrony group’ is used to refer to sets of zone players that  
16 are playing the same audio program synchronously, zone player 11(1) *will not be part of zone*  
17 *player 11(6)’s synchrony group*, even though zone player 11(1) is providing the audio information  
18 for the audio program to zone player 11(6).” Millington at 7.

19 728. Further yet, I disagree with Dr. Schonfeld’s suggestion that, when Millington discloses  
20 that adding a “zone player” to a “synchrony group” causes the “zone player” to “be *enabled* to play  
21 the audio program that is currently being played by that synchrony group,” this somehow amounts to  
22 a teaching that the “zone player” will remain in standalone mode. Schonfeld Op. Report at ¶ 421. In  
23 my opinion, this teaches the exact opposite – namely, that when a “zone player” is added to a  
24 “synchrony group,” it will automatically configure itself for synchronous playback as part of that  
25 “synchrony group” and stop operating in “standalone mode,” which is one of the teachings that  
26 demonstrates why a “synchrony group” is not a “zone scene.” This operation is confirmed by  
27 various other aspects of Millington’s disclosure as well, which describe that when a “zone player”  
28 is added to a “synchrony group,” it will perform various operations in order to configure itself to

1 begin operating as part of the “synchrony group,” and will no longer be configured for individual  
2 audio playback. Millington at 7-9, 10, 14-16, 32-33.

3 729. For similar reasons, I disagree with Dr. Schonfeld’s statement that “Millington further  
4 discloses keeping a media player in standalone mode after joining a group, because players disclosed  
5 by Millington continue to operate independently of the newly joined group,” which is not correct.  
6 Schonfeld Op. Report at ¶ 422. Contrary to this statement, Millington discloses that when a “zone  
7 player” joins a “synchrony group,” it automatically transitions from operating in a “standalone mode”  
8 to operating in accordance with the “synchrony group” at that time. Millington at 7-9, 10, 14-16, 32-  
9 33.

10 730. Similar to his theories for Sonos’s 2005 system, Dr. Schonfeld’s position to the  
11 contrary here appears to be based on his view that a “synchrony group” is not “invoked” – and  
12 thus a “zone player” does not transition out of “standalone mode” and become configured for  
13 synchronous playback – until the “synchrony group” is actually caused to play back audio.  
14 However, in my opinion, this is not how a POSITA would understand the terms “invoke” or  
15 “standalone mode” in the context of the claim language and specification of the ’885 Patent.  
16 Rather, a POSITA would understand that a “synchrony group” is “invoked” at the point in time  
17 when the “synchrony group” becomes activated for synchronous playback such that group  
18 members enter a mode in which they are controlled and used as part of the group, which is distinct  
19 from the act of initiating playback on that “synchrony group” (although in some scenarios it is  
20 possible that playback could be automatically initiated as a result of the “synchrony group” being  
21 invoked). And as explained above, a “synchrony group” becomes activated for synchronous  
22 playback and the group members transition out of “standalone mode” and into a grouped mode at  
23 the time that the “synchrony group” is created, not at some later time

24 731. Thus, even if a POSITA in 2005-06 were to modify and combine Sonos’s 2005  
25 system with the identified functionality of Millington’s “network audio system” in the manner  
26 proposed by Dr. Schonfeld, such a hypothetical system still would not achieve either the specific  
27 player-side “zone scenes” functionality required by Asserted Claim 1 of the ’885 Patent or the  
28 specific controller-side “zone scenes” functionality required by the Asserted Claims of the ’966

1 Patent that Dr. Schonfeld failed to analyze.

2 732. Third, Dr. Schonfeld has failed to provide any explanation as to how Sonos's 2005  
3 system would have actually been modified to combine it with the identified functionality of  
4 Millington's "networked audio system" – let alone how that alleged combination would have  
5 achieved the claimed invention.

6 733. Thus, for these reasons, it is my opinion that Asserted Claim 1 of the '966 Patent is  
7 not rendered obvious by Sonos's 2005 system in combination with Millington.

8 **(e) Sonos's 2005 System in view of Squeezebox**

9 734. In his section entitled "'966 Claims Are Obvious Based On [Sonos's 2005  
10 System]," Dr. Schonfeld does not identify Sonos's 2005 system in view of Squeezebox as an  
11 obviousness combination for Asserted Claim 1 of the '966 Patent. Schonfeld Op. Report at ¶¶ 965  
12 (stating that "[i]n my opinion, Claim 1 is rendered obvious based on the Sonos System in view of  
13 the general knowledge of a POSITA, the Sonos Forums, Nourse, and Millington"). However, in  
14 his earlier "Summary of Opinions" section, Dr. Schonfeld includes a bullet stating that "Sonos  
15 System in combination with Sonos Forums, *Squeezebox*, Millington, and/or Nourse renders the  
16 asserted claims obvious." *Id.* at ¶ 6. In view of this inconsistency, it is not clear whether Dr.  
17 Schonfeld is offering an opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based  
18 on Sonos's 2005 system in view of Squeezebox, but to the extent he is offering such an opinion, I  
19 disagree – in my opinion, Asserted Claim 1 of the '966 Patent is not rendered obvious by Sonos's  
20 2005 system in view of Squeezebox, and Dr. Schonfeld's apparent opinion to the contrary is flawed  
21 for several reasons.

22 735. As an initial matter, to the extent that Dr. Schonfeld is offering an opinion that that  
23 Asserted Claim 1 of the '966 Patent is rendered obvious based on Sonos's 2005 system in view of  
24 Squeezebox, Dr. Schonfeld fails to set forth any bases or reasoning for such an opinion. *See*  
25 Schonfeld Op. Report at ¶¶ 966-978. Instead, Dr. Schonfeld relies exclusively on the obviousness  
26 analysis that he set forth in connection with his opinion that Asserted Claim 1 of the '885 Patent  
27 is rendered obvious by Sonos's 2005 system in view of Squeezebox, without providing any  
28 explanation as to how that prior obviousness analysis of Asserted Claim 1 of the '885 Patent

1 applies to Asserted Claim 1 of the '966 Patent. *Id.* For this reason alone, I find Dr. Schonfeld's  
2 apparent opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on Sonos's  
3 2005 system in view of Squeezebox to be deficient.

4 736. Additionally, as I previously explained in my '885 Rebuttal Report, Dr. Schonfeld's  
5 obviousness analysis that he provides in connection with his opinion that Asserted Claim 1 of the  
6 '885 Patent is rendered obvious by Sonos's 2005 system in view of Squeezebox suffers from a  
7 number of flaws, many of which are applicable to the Asserted Claims of the '966 Patent as well.

8 737. First, as with Sonos's 2005 system, Squeezebox did not have any "zone scenes"  
9 functionality, let alone the specific "zone scenes" functionality required by the Asserted Claims of  
10 the '885 and '966 Patents. Thus, even if a POSITA in 2005-06 were to modify and combine  
11 Sonos's 2005 system with the "sync group" functionality of a Squeezebox system in the manner  
12 proposed by Dr. Schonfeld, such a hypothetical system still would not achieve either the specific  
13 player-side "zone scenes" functionality required by Asserted Claim 1 of the '885 Patent or the  
14 specific controller-side "zone scenes" functionality required by the Asserted Claims of the '966  
15 Patent that Dr. Schonfeld failed to analyze.

16 738. Second, Dr. Schonfeld has failed to provide any explanation as to how Sonos's  
17 2005 system would have actually been modified to combine it with the "sync group" functionality  
18 of a Squeezebox system – let alone how that alleged combination would have achieved the claimed  
19 invention.

20 739. Third, I disagree that a POSITA in 2005-06 would have been motivated to modify  
21 Sonos's 2005 system to combine it with the "sync group" functionality of a Squeezebox system.  
22 As discussed above, Sonos's 2005 system already included ad-hoc "zone group" functionality that  
23 allowed the ZonePlayers to be grouped together on demand for synchronous playback (albeit in a  
24 different way than the claimed "zone scenes" functionality). The evidence I have seen shows that this  
25 ad-hoc "zone group" functionality was being praised throughout the industry. *See, e.g.*, GOOG-  
26 SONOS-NDCA-00108095 at 365 (disclosing that Sonos's system in 2006 was "pure heaven" and  
27 touting that "[y]ou can perform some pretty sophisticated stunts using that remote, like directing  
28 different streams of music to different rooms, linking several rooms so that they all play the same

1 music....”); SONOS-SVG2-00234176 at 76-77 (Feb. 3, 2005 PC Magazine article stating Sonos’s  
2 ZP100 “is the first digital audio hub we can recommend without reservation. . . . It can play the same  
3 music throughout the house, perfectly synchronized. Even though that may seem drop-dead simple,  
4 other hubs don’t do it. And you can join multiple rooms to play the same music . . . on the fly.”);  
5 SONOS-SVG2-00227422 (March 22, 2005 PC Magazine article stating the same); SONOS-SVG2-  
6 00234162 at 62-64 (Feb. 24, 2005 Wall Street Journal article stating “[t]he Sonos system is easily the  
7 best music-streaming product I have seen and tested,” and “[i]t’s the Lexus of the category” at least  
8 because “[t]he system works in multiple rooms of a home, allowing you to play . . . the same songs, in  
9 each room simultaneously . . . . you can group the ‘Zones,’ so several receive the same music  
10 simultaneously.”); SONOS-SVG2-00234165 (listing various “[a]wards, accolades and achievements”  
11 by Sonos in 2004-2006); SONOS-SVG2-00234171 (same); SONOS-SVG2-00234181 (2005 Playlist  
12 Magazine article stating “[y]ou can control each ZonePlayer independently of the others, or you can  
13 sync all of them for full-house entertainment. The result? The music you want, in whatever rooms you  
14 want -- the whole-house-music thing done right . . . . Where the Sonos system stands out from similar  
15 systems is in its zone management. Using the Controller’s Zone menu, you can easily link zones to  
16 play the same music in sync . . . .”); SONOS-SVG2-00234182 at 84 (Dec. 2005 LA Audio file article  
17 stating “[u]sing the Link Zone feature, users can link some or all of the listening zones to a single  
18 group. This is particularly useful when having a party or when one might be moving from one room  
19 to another within the house and would like to hear the same music.”), at 86 (“Having seen so many  
20 options for distributing audio in today’s homes, I can’t think of a better all-around product than the  
21 Sonos Digital Music System.”). And conversely, I have not seen any evidence suggesting that a  
22 POSITA in 2005-06 would have recognized any particular problem with Sonos’s ad-hoc “zone group”  
23 functionality that would have led such a POSITA to consider a different mechanism for grouping  
24 ZonePlayers in Sonos’s 2005 system on demand for synchronous playback – let alone would have led  
25 such a POSITA to implement the “sync group” functionality of a Squeezebox system. For at least  
26 these reasons, I disagree that a POSITA in 2005-06 would have been motivated to replace the existing  
27 ad-hoc “zone group” functionality of Sonos’s 2005 system with the “sync group” functionality of a  
28 Squeezebox system, particularly in view of the time, effort, and cost that would have been required

1 to overhaul the grouping mechanism of Sonos's 2005 system.

2 740. In his Opening Report, Dr. Schonfeld says that a POSITA would have been  
3 motivated to combine Sonos's 2005 system with Squeezebox simply because "Mr. Lambourne  
4 testified, he was aware of Squeezebox given its competitive nature with the Sonos System," and  
5 "[o]thers including reviewers recognized Sonos System as a competitor of Squeezebox."  
6 Schonfeld Op. Report at ¶ 403. However, these generic statements fail to establish why a POSITA  
7 in 2005-06 would have been motivated to make any modification to Sonos's 2005 system at all –  
8 let alone why a POSITA in 2005-06 would have been motivated to combine Sonos's 2005 system  
9 with the "sync group" functionality of a Squeezebox system in the manner proposed by Dr.  
10 Schonfeld.

11 741. I have also seen evidence of affirmative reasons why a POSITA would not have  
12 been motivated to combine Sonos's 2005 system with the "sync group" functionality of a  
13 Squeezebox system. For instance, as explained below, the Squeezebox system that has a different  
14 system architecture than Sonos's 2005 system that relies on a centralized server called a  
15 SlimServer to power the Squeezebox players in the system. Given this significant difference in  
16 the system architectures, a POSITA would have been dissuaded from modifying Sonos's 2005  
17 system to combine it with the functionality of the Squeezebox system, as such a modification  
18 would have required to the architecture of Sonos's 2005 system to be redesigned to incorporate a  
19 centralized server, which would have altered the principle of operation of Sonos's 2005 system.

20 742. Finally, because there is no evidence that a POSITA in 2005-06 would have been  
21 motivated to modify Sonos's 2005 system to combine it with the identified functionality of  
22 Squeezebox, it appears that Dr. Schonfeld has used the asserted claims as a roadmap to reach his  
23 conclusion that a POSITA would have found the claimed invention obvious based on Sonos's 2005  
24 system in combination with Squeezebox, which I understand to be improper.

25 743. Thus, for these reasons, it is my opinion that Asserted Claim 1 of the '966 Patent is  
26 not rendered obvious by Sonos's 2005 system in combination with Squeezebox.

27 **(f) Sonos's 2005 System in view of Crestron**

28 744. In his Opening Report, Dr. Schonfeld never offers an opinion that any Asserted



1 Claim of either the '885 Patent or the '966 Patent is rendered obvious based on Sonos's 2005  
2 system in view of what Dr. Schonfeld refers to as "Crestron," but in his limitation-by-limitation  
3 obviousness analysis of Asserted Claim 1 of the '885 Patent, Dr. Schonfeld does include sub-  
4 sections discussing Crestron in connection with claim limitations 1.5, 1.6, 1.7, 1.8, 1.9, and 1.10  
5 of Asserted Claim 1 of the '885 Patent. *Compare* Schonfeld Op. Report at ¶¶ 6, 269, 965  
6 (summarizing Dr. Schonfeld's "Sonos System" obviousness grounds without mentioning  
7 Crestron) *with id.* at ¶¶ 332, 370-371, 405, 438-439, 447, 457 (discussing Crestron as part of Dr.  
8 Schonfeld's obviousness analysis for Asserted Claim 1 of the '885 Patent as compared to Sonos's  
9 2005 system).

10 745. Given that Dr. Schonfeld has not offered an opinion that any Asserted Claim of  
11 either the '885 Patent or the '966 Patent is rendered obvious based on Sonos's 2005 system in view  
12 of Crestron, it is not clear what relevance these sub-sections have to Dr. Schonfeld's obviousness  
13 opinions. Nevertheless, to the extent that Dr. Schonfeld later attempts to and is permitted to offer  
14 an opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on Sonos's 2005  
15 system in view of Crestron, I disagree.

16 746. As an initial matter, Dr. Schonfeld fails to set forth any bases or reasoning that  
17 would support an opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on  
18 Sonos's 2005 system in view of Crestron. *See* Schonfeld Op. Report at ¶¶ 966-978. Instead, Dr.  
19 Schonfeld only discusses Crestron in the context of certain limitations of Asserted Claim 1 of the  
20 '885 Patent, without providing any explanation as to how that discussion applies to Asserted Claim  
21 1 of the '966 Patent.

22 747. Additionally, Dr. Schonfeld's discussion of Crestron that he includes in his analysis  
23 of Asserted Claim 1 of the '885 Patent as compared to Sonos's 2005 system suffers from a number  
24 of flaws, many of which are applicable to the Asserted Claims of the '966 Patent as well.

25 748. First, Dr. Schonfeld has failed to establish that his "Crestron" system qualifies as  
26 prior art to any claim of either the '885 Patent or the '966 Patent. In fact, Dr. Schonfeld failed to  
27 even identify a particular subsection of 35 U.S.C. § 102 under which Crestron would qualify as  
28 prior art. Regardless, as I explained above, Dr. Schonfeld's alleged "Crestron" system does not

1 qualify as prior art for multiple reasons. For instance, the various documents that Dr. Schonfeld  
2 cites to in his Opening Report describe many different products (e.g., Crestron D3 Pro, Crestron  
3 Adagio AES, Crestron Adagio AMS, Crestron RoomView, and C2N-DAP8RC) and thus do not  
4 evidence the functionality of a single “Crestron” prior art system. This is true even with respect  
5 to the only two products that Dr. Schoenfeld actually relies on in connection with his obvious  
6 analysis – (1) Crestron Adagio AES Entertainment System, and (2) Crestron Adagio AMS Media  
7 System. Indeed, these are two different products that do not constitute a single prior art system.  
8 Moreover, the only document that Dr. Schonfeld cites to in his obviousness analysis for the alleged  
9 functionality of the Crestron AMS system has a 2008 copyright notice, which is well after the  
10 December 21, 2005 invention date and September 12, 2006 priority date of the ’885 and ’966  
11 Patents. Thus, this document does not qualify as prior art and Dr. Schonfeld has not otherwise  
12 established that the disclosures in this document were embodied in a system that was publicly  
13 available in the United States at a time that would qualify the system as prior art.

14 749. Second, the Crestron AES system did not have the claimed “zone scene”  
15 functionality that was missing from Sonos’s 2005 system.<sup>28</sup>

16 750. As discussed above, the Crestron AES system is a conventional centralized speaker  
17 system that includes an AES device that can be hard-wired to passive speakers in up to 6 different  
18 rooms using speaker cable. See GOOG-SONOSNDCA-00117940-941.

19 751. However, as an initial matter, Crestron’s centralized AES speaker system is not a  
20 “*networked* media playback system” comprising “zone players.” Indeed, the connections between  
21 the centralized AES device and the “stereo room speakers” comprise conventional speaker wires,  
22 which are not a data network as a POSITA would understand that term, and the “speakers” of the  
23 Crestron AES system are not “zone players” for at least the reasons that such devices (i) are not  
24 *data network* devices that are configured to *process* and output audio and (ii) did not have the  
25 capability to change their “configur[ation]” as it related to audio playback in order to transition

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26 <sup>28</sup> Given that the Crestron AMS system is not prior art, my analysis focuses on the Crestron AES  
27 system. However, Dr. Schonfeld’s reliance on the Crestron AMS system fails for nearly all of the  
28 same reasons discussed below for the Crestron AES system, including that the Crestron AMS  
system did not have the claimed “zone scene” functionality.

1 between “standalone mode” and grouped mode. *Id.* For this reason alone, the Crestron AES  
2 system fails to disclose or suggest any “computing device” that is “serving as a controller for a  
3 networked media playback system comprising a first zone player and at least two other zone  
4 players,” let alone a “computing device” that has the functional capability to carry out all of the  
5 other controller functions for a “network media playback system” that are required by claim  
6 limitations 1.4-1.11 of Asserted Claim 1 of the '966 Patent.

7 752. Further, even setting aside the fact that Crestron’s centralized AES speaker system is  
8 not a “networked media playback system” comprising “zone players,” there is no device within  
9 Crestron’s centralized AES speaker system that has the specific controller-side “zone scenes”  
10 functionality required by claim limitations 1.4-1.11 of Asserted Claim 1 of the '966 Patent or the  
11 additional limitations of Asserted Claims 2, 4, 6, and 8 of the '966 Patent or the additional  
12 limitations of Asserted Claims 2, 4, 6, and 8 of the '966 Patent.

13 753. As explained above, Dr. Schonfeld does not offer any opinions as to whether the  
14 Crestron AES system discloses or suggests any of the claim limitations of Asserted Claim 1 of the  
15 '966 Patent. Instead, Dr. Schonfeld only discusses the Crestron AES system in connection with  
16 claim limitations 1.5-1.10 of Asserted Claim 1 of the '885 Patent, which require the claimed “first  
17 zone player” to be programmed with the functional capability to (i) “receiv[e], from a network  
18 device over a data network, a first indication that the first zone player has been added to a first  
19 zone scene” while the “first zone player” is “operating in a standalone mode,” (ii) “receiv[e], from  
20 the network device over the data network, a second indication that the first zone player has been  
21 added to a second zone scene” while the “first zone player” is “operating in a standalone mode,”  
22 and (iii) “after receiving the first and second indications, continu[e] to operate in the standalone  
23 mode until a given one of the first and second zone scenes has been selected for invocation.”  
24 Schonfeld Op. Report at ¶¶ 332, 370-371, 405, 438-439, 447, 457. However, nothing in Dr.  
25 Schonfeld’s discussion of the Crestron AES system in the context of claim limitations 1.5-1.10 of  
26 Asserted Claim 1 of the '885 Patent alters my opinion that Crestron’s centralized AES speaker  
27 system did not have *any* functional capability for creating or invoking a “zone scene” – let alone  
28 the specific controller-side “zone scenes” functionality required by claim limitations 1.4-1.11 of

1 Asserted Claim 1 of the '966 Patent.

2 754. The underlying premise of Dr. Schonfeld's theories regarding the Crestron AES  
3 system appears to be that a "Room Group" of "speakers" in Crestron's centralized AES speaker  
4 system amounts to a "zone scene." See Schonfeld Op. Report at ¶¶ 332, 370-371, 405, 438-439,  
5 447, 457. I disagree for several reasons.

6 755. First, a "Room Group" in Crestron's centralized AES speaker system does not  
7 comprise a user-customized, pre-saved group of "zone players" as required by a "zone scene,"  
8 because the "speakers" are not "zone players."

9 756. Second, a "Room Group" in Crestron's centralized AES speaker system is not a  
10 "zone scene" for the additional reason that the "speakers" in a "Room Group" do not become  
11 "*configured for synchronous playback*" when the "group" is selected. In fact, the 2-page AES  
12 brochure that Dr. Schonfeld relies on never discloses or even suggests that the "speakers" in a  
13 "Room Group" would engage in "synchronous playback," let alone that the "configur[ation]" of  
14 the "speakers" would change when a "Room Group" is selected in order to achieve "synchronous  
15 playback." And for this same reason, the 2-page AES brochure likewise fails to disclose or suggest  
16 that the "speakers" in a "Room Group" are "configured to coordinate . . . to output media in  
17 synchrony with" one another when the "group" is selected, as required by claim limitation 1.11 of  
18 Asserted Claim 1 of the '966 Patent under Dr. Schonfeld's apparent mapping. To the contrary,  
19 because the "speakers" in Crestron's centralized AES speaker system lack data network and data  
20 processing capability, a POSITA would understand that the "speakers" have the exact same  
21 configuration both before and after a "group" is selected.

22 757. Third, Crestron's centralized AES speaker system did not have any capability for a  
23 user to assign a thematic name to a "Room Group," which fails to meet the additional "according  
24 to a common theme" requirement of Google's proposed construction of a "zone scene." I note that  
25 providing a name via a "labeling strip" that is manually attached to the exterior of the centralized  
26 AES device does not satisfy the thematic naming requirement of a "zone scene." See GOOG-  
27 SONOSNDCA-00117940-941 at 941.

28 758. Further, even setting aside these differences between a "Room Group" in Crestron's

1 centralized AES speaker system and a “zone scene,” Dr. Schonfeld fails to identify any functionality  
2 of Crestron’s centralized AES speaker system that would satisfy the other aspects of Asserted Claim  
3 1 of the ’966 Patent under Dr. Schonfeld’s apparent mapping.

4 759. For example, Dr. Schonfeld fails to identify any functionality of Crestron’s  
5 centralized AES speaker system that amounts to a “computing device” causing an “indication” of a  
6 “Room Group” to be transmitted to a “speaker,” as required by claim limitations 1.6 and 1.8 of  
7 Asserted Claim 1 of the ’966 Patent under Dr. Schonfeld’s apparent mapping.

8 760. As another example, Dr. Schonfeld fails to identify any functionality of Crestron’s  
9 centralized AES speaker system that amounts to a “computing device” “displaying a representation  
10 of the first [‘Room Group’] and a representation of the second [‘Room Group’]” and then “while  
11 displaying the representation of the first [‘Room Group’] and the representation of the second  
12 [‘Room Group’], receiving a third request to invoke the first [‘Room Group’],” as required by  
13 claim limitations 1.9-1.10 of Asserted Claim 1 of the ’966 Patent under Dr. Schonfeld’s apparent  
14 mapping.

15 761. As yet another example, Dr. Schonfeld fails to identify any functionality of  
16 Crestron’s centralized AES speaker system that amounts to a “computing device” receiving a  
17 “request to invoke” a “Room Group,” and then based on that “request,” causing a first “speaker”  
18 to “transition from operating in the standalone mode to operating in accordance with [a] first  
19 predefined grouping of [‘speakers’] such that the first [‘speaker’] is configured to coordinate with  
20 at least [a second ‘speaker’] to output media in synchrony with output of media by at least the  
21 second [‘speaker’],” as required by claim limitations 1.10-1.11 of Asserted Claim 1 of the ’966  
22 Patent under Dr. Schonfeld’s apparent mapping.

23 762. As still example, Dr. Schonfeld fails to identify any functionality of Crestron’s  
24 centralized AES speaker system that amounts to a “computing device” receiving a “request to  
25 invoke” a second “Room Group” at a time when a first “Room Group” is invoked such that the  
26 “speakers” in the first “Room Group” are “configured to coordinate” with one another “to play  
27 back media in synchrony,” and then based on the “request,” causing a first “speaker” to “(a) cease  
28 to operate in accordance with the first [‘Room Group’] such that the first [‘speaker’] is no longer

1 configured to coordinate with at least the second [‘speaker’] to output media in synchrony with  
2 output of media by at least the second [‘speaker’] and (b) begin to operate in accordance with the  
3 second [‘Room Group’] such that the first [‘speaker’] is configured to coordinate with at least [a  
4 third ‘speaker’ in the second ‘Room Group’] to output media in synchrony with output of media  
5 by at least the third [‘speaker’],” as required by Asserted Claim 2 of the ’966 Patent under Dr.  
6 Schonfeld’s apparent mapping.

7 763. As a further example, Dr. Schonfeld fails to identify any functionality of Crestron’s  
8 centralized AES speaker system that amounts to a “computing device” causing a “Room Group” to  
9 be stored at a “speaker” in the “Room Group,” as required by Asserted Claim 4 of the ’966 Patent  
10 under Dr. Schonfeld’s apparent mapping.

11 764. Thus, even if a POSITA in 2005-06 were to modify and combine Sonos’s 2005  
12 system with the identified functionality of Crestron’s centralized AES speaker system in the manner  
13 proposed by Dr. Schonfeld, such a hypothetical system still would not achieve either the specific  
14 player-side “zone scenes” functionality required by Asserted Claim 1 of the ’885 Patent or the  
15 specific controller-side “zone scenes” functionality required by the Asserted Claims of the ’966  
16 Patent that Dr. Schonfeld failed to analyze.

17 765. Third, Dr. Schonfeld has failed to provide any explanation as to how Sonos’s 2005  
18 system would have actually been modified to combine it with the identified functionality of  
19 Crestron’s centralized AES speaker system – let alone how that alleged combination would have  
20 achieved the claimed invention.

21 766. Fourth, I disagree that a POSITA in 2005-06 would have been motivated to modify  
22 Sonos’s 2005 system to combine it with the identified functionality of Crestron’s centralized AES  
23 speaker system. As discussed above, Sonos’s 2005 system already included ad-hoc “zone group”  
24 functionality that allowed the ZonePlayers to be grouped together on demand for synchronous  
25 playback (albeit in a different way than the claimed “zone scenes” functionality). The evidence I have  
26 seen shows that this ad-hoc “zone group” functionality was being praised throughout the industry. *See,*  
27 *e.g.*, GOOG-SONOS-NDCA-00108095 at 365 (disclosing that Sonos’s system in 2006 was “pure  
28 heaven” and touting that “[y]ou can perform some pretty sophisticated stunts using that remote, like

1 directing different streams of music to different rooms, linking several rooms so that they all play the  
2 same music...."); SONOS-SVG2-00234176 at 76-77 (Feb. 3, 2005 PC Magazine article stating  
3 Sonos's ZP100 "is the first digital audio hub we can recommend without reservation. . . . It can play  
4 the same music throughout the house, perfectly synchronized. Even though that may seem drop-dead  
5 simple, other hubs don't do it. And you can join multiple rooms to play the same music . . . on the  
6 fly."); SONOS-SVG2-00227422 (March 22, 2005 PC Magazine article stating the same); SONOS-  
7 SVG2-00234162 at 62-64 (Feb. 24, 2005 Wall Street Journal article stating "[t]he Sonos system is  
8 easily the best music-streaming product I have seen and tested," and "[i]t's the Lexus of the category"  
9 at least because "[t]he system works in multiple rooms of a home, allowing you to play . . . the same  
10 songs, in each room simultaneously . . . . you can group the 'Zones,' so several receive the same music  
11 simultaneously."); SONOS-SVG2-00234165 (listing various "[a]wards, accolades and achievements"  
12 by Sonos in 2004-2006); SONOS-SVG2-00234171 (same); SONOS-SVG2-00234181 (2005 Playlist  
13 Magazine article stating "[y]ou can control each ZonePlayer independently of the others, or you can  
14 sync all of them for full-house entertainment. The result? The music you want, in whatever rooms you  
15 want -- the whole-house-music thing done right . . . . Where the Sonos system stands out from similar  
16 systems is in its zone management. Using the Controller's Zone menu, you can easily link zones to  
17 play the same music in sync . . . ."); SONOS-SVG2-00234182 at 84 (Dec. 2005 LA Audio file article  
18 stating "[u]sing the Link Zone feature, users can link some or all of the listening zones to a single  
19 group. This is particularly useful when having a party or when one might be moving from one room  
20 to another within the house and would like to hear the same music."), at 86 ("Having seen so many  
21 options for distributing audio in today's homes, I can't think of a better all-around product than the  
22 Sonos Digital Music System."). And conversely, I have not seen any evidence suggesting that a  
23 POSITA in 2005-06 would have recognized any particular problem with Sonos's ad-hoc "zone group"  
24 functionality that would have led such a POSITA to consider a different mechanism for grouping  
25 ZonePlayers in Sonos's 2005 system on demand for synchronous playback -- let alone would have led  
26 such a POSITA to implement the identified functionality of Crestron's centralized AES speaker  
27 system. For at least these reasons, I disagree that a POSITA in 2005-06 would have been motivated  
28 to replace the existing ad-hoc "zone group" functionality of Sonos's 2005 system with the identified



1 functionality of Crestron's centralized AES speaker system, particularly in view of the time, effort,  
2 and cost that would have been required to overhaul the grouping mechanism of Sonos's 2005 system.

3 767. Nevertheless, in his Opening Report, Dr. Schonfeld concludes that it would have  
4 been obvious to combine Sonos's 2005 system with the identified functionality of Crestron's  
5 centralized AES speaker system. However, Dr. Schonfeld fails to provide any reasoning whatsoever  
6 regarding why such a combination would have been obvious to a POSITA in 2005-06. Instead, Dr.  
7 Schonfeld merely concludes that it would have been obvious and then provides his characterization of  
8 the "Crestron" system. The entirety of Dr. Schonfeld's analysis regarding his "Crestron" system is  
9 shown below:

- 10 • "As I addressed below in relation to Limitation 1.6, it would also have been obvious  
11 to modify the Sonos System with the Crestron system to add this claim limitation,  
12 to the extent it is not disclosed, for the same reasons discussed with respect to  
13 Limitation 1.6. The Crestron system, as described in Section X (and incorporated  
14 herein by reference), includes the ability to create zone groups while maintaining  
15 the ability to play to individual zones within those groups (e.g., in standalone  
16 mode)." (Schonfeld Op. Report at ¶ 332 re limitation 1.5 of Asserted Claim 1 of  
17 the '885 Patent);
- 18 • "To the extent it is found that the Sonos 2005 system did not explicitly disclose a  
19 "zone scene" as discussed in the Court's Order, such features would have been  
20 obvious to a person of skill in the art, in view at least of the Sonos Forums, Nourse,  
21 and/or Crestron. For example, as I described in Section X (incorporated herein by  
22 reference), Crestron also offered multi-room audio systems including speaker  
23 grouping and naming. For example, as shown below in a manual dated November  
24 2005 and copyrighted 2005, Crestron offered multi-room audio including naming.  
25 The system supported up to 24 rooms where listeners in each room could 'listen  
26 selectively' to different audio sources. The system was plug-and-play compatible  
27 with Crestron's iPod connector, called 'iPod Connect.' Further, the system  
28 supported 'Room Groups,' which made 'it simple to combine speakers in adjacent  
rooms, or switch into whole-house party mode, by letting the user link any number  
of rooms to function as one.' The Crestron system allowed up to 6 groups, and as  
shown in the image below, the rooms/groups would be identified by name, such as  
'Kitchen.' The system manual below did not provide other limitations on  
grouping—for example restricting which rooms could be grouped or not grouped." (*Id.* at ¶¶ 370-371 re limitation 1.6 of Asserted Claim 1 of the '885 Patent);
- "As I addressed below in relation to Limitation 1.6, it would also have been obvious  
to modify the Sonos System with Crestron to add this claim limitation, to the extent  
it is not disclosed for the same reasons discussed with respect to Limitation 1.6. For  
example, Crestron also offered multi-room audio systems including speaker  
grouping and the ability for a speaker to be part of multiple speaker groups. For  
example, as shown below in a manual dated November 2005 and copyrighted 2005,

1 Crestron offered multi-room audio. The system manual below did not provide other  
2 limitations on grouping—for example restricting which rooms could be grouped or  
not grouped.” (*Id.* at ¶ 405 re limitation 1.7 of Asserted Claim 1 of the ’885 Patent);

- 3 • “It would have been obvious to combine Crestron with Sonos System for the  
4 reasons discussed above. As I addressed above in relation to Limitation 1.6, it  
5 would have been obvious to modify the Sonos System with Crestron to add this  
6 claim limitation, to the extent it is not disclosed for the same reasons discussed with  
7 respect to Limitation 1.6. For example, Crestron also offered multi-room audio  
8 systems including speaker grouping and naming. For example, as shown below in  
9 a manual dated November 2005 and copyrighted 2005, Crestron offered multi-  
10 room audio. The system supported up to 24 rooms where listeners in each room  
11 could “listen selectively” to different audio sources. The system was plug-and-play  
compatible with Crestron’s iPod connector, called ‘iPod Connect.’ Further, the  
system supported “Room Groups,” which made “it simple to combine speakers in  
adjacent rooms, or switch into whole-house party mode, by letting the user link any  
number of rooms to function as one,” but also let ‘listeners in each room ... listen  
selectively to any of 10 different stereo sources.’ The system manual below did not  
provide other limitations on grouping.” (*Id.* at ¶¶ 438-39 re limitation 1.8 of  
Asserted Claim 1 of the ’885 Patent);
- 12 • “As I addressed above in relation to Limitation 1.6, it would also have been obvious  
13 to modify the Sonos System with Crestron to add this claim limitation, to the extent  
14 it is not disclosed for the same reasons discussed with respect to Limitation 1.6.  
This is at least because Crestron discloses that a speaker can be part of multiple  
groups, as I described e.g. in Section X (and incorporated herein by reference), and  
15 in order for a speaker to be part of two zone scenes or two groups at the same time,  
16 the zone scenes or zone groups must be able to be created separately from any  
invocation step.” (*Id.* at ¶ 447 re limitation 1.9 of Asserted Claim 1 of the ’885  
Patent); and
- 17 • “As I addressed above in relation to Limitation 1.6, it would also have been obvious  
18 to modify the Sonos System with Crestron to add this claim limitation, to the extent  
19 it is not disclosed, for the same reasons discussed with respect to Limitation 1.6.”  
(*Id.* at ¶ 457 re limitation 1.10 of Asserted Claim 1 of the ’885 Patent).

20 768. In addition to the fact that Dr. Schonfeld failed to provide any analysis as to how  
21 or why the combination of Sonos’s 2005 and “Crestron” achieves the specific controller-side “zone  
22 scenes” functionality required by Asserted Claim 1 of the ’966 Patent, Dr. Schonfeld’s failure to  
23 explain why a POSITA in 2005-06 would have allegedly been motivated to combine Sonos’s 2005  
24 system with the identified functionality of Crestron’s centralized AES speaker system confirms that  
25 his analysis is flawed and deficient.<sup>29</sup>

26 769. In any event, I have seen evidence of affirmative reasons why a POSITA would not

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27 <sup>29</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

1 have been motivated to combine Sonos's 2005 system with the identified functionality of  
2 Crestron's centralized AES speaker system. For instance, as explained above, Crestron's centralized  
3 AES speaker system is a conventional centralized speaker system that includes passive, hard-wired  
4 speakers. In contrast, Sonos's 2005 system was a networked audio system comprising network-  
5 enabled "zone players" that was specifically intended to provide a new paradigm for home audio  
6 that improved upon the many deficiencies of conventional hard-wired systems like Nourse's  
7 "centralized speaker system." *See, e.g.,* GOOG-SONOS-NDCA-00108095 at 364 (disclosing that  
8 "[a] wholehouse sound system usually involves hiring somebody to run wires through your walls,  
9 install custom speakers and program a wireless remote control," but with Sonos ZonePlayer,  
10 "you're spared the inwall wiring, the installer's visit and the second mortgage."), 467 ("This means  
11 that you do not need to go to the effort of installing cables, and you can relocate your ZonePlayer(s)  
12 easily."). Given these fundamental differences between Sonos's 2005 system and Crestron's  
13 centralized AES speaker system, it is my opinion that a POSITA would have been dissuaded from  
14 modifying Sonos's 2005 system to combine it with the identified functionality of Crestron's  
15 centralized AES speaker system.

16 770. Along similar lines, Dr. Schonfeld's opinion that a POSITA would have been  
17 motivated to modify Sonos's 2005 system to combine it with the identified functionality of  
18 Crestron's centralized AES speaker system is contradicted by the fact that such a modification would  
19 have fundamentally altered the principles of operation of Sonos's 2005 system given that Sonos's  
20 2005 system was a *decentralized* system built around ZonePlayers having data networking and  
21 data processing capability whereas Crestron's centralized AES speaker system is directed to a  
22 *centralized* speaker system that was built around a centralized AES device that was used to control  
23 passive, hard-wired speakers.

24 771. Finally, because there is no evidence that a POSITA in 2005-06 would have been  
25 motivated to modify Sonos's 2005 system to combine it with the identified functionality of  
26 Crestron's centralized AES speaker system, it appears that Dr. Schonfeld has used the asserted  
27 claims as a roadmap to reach his conclusion that a POSITA would have found the claimed  
28 invention obvious based on Sonos's 2005 system in combination with Crestron's centralized AES

1 speaker system, which I understand to be improper.

2 772. Thus, for these reasons, it is my opinion that Asserted Claim 1 of the '966 Patent is  
3 not rendered obvious by Sonos's 2005 system in combination with Dr. Schonfeld's "Crestron"  
4 system.

5 **(g) Sonos's 2005 System in view of Yamaha DME**

6 773. In his Opening Report, Dr. Schonfeld never offers an opinion that any Asserted  
7 Claim of either the '885 Patent or the '966 Patent is rendered obvious based on Sonos's 2005  
8 system in view of Yamaha DME, but in his limitation-by-limitation obviousness analysis of  
9 Asserted Claim 1 of the '885 Patent, Dr. Schonfeld does include sub-sections discussing Yamaha  
10 DME in connection with claim limitations 1.6, 1.7, 1.9, and 1.10 of Asserted Claim 1 of the '885  
11 Patent. *Compare* Schonfeld Op. Report at ¶¶ 6, 269, 965 (summarizing Dr. Schonfeld's "Sonos  
12 System" obviousness grounds without mentioning Yamaha DME) *with id.* at p. 285 (unnumbered  
13 paragraph between ¶¶ 371-372) and ¶¶ 406, 448, 458 (discussing Yamaha DME as part of Dr.  
14 Schonfeld's obviousness analysis for Asserted Claim 1 of the '885 Patent as compared to Sonos's  
15 2005 system).

16 774. Given that Dr. Schonfeld has not offered an opinion that any Asserted Claim of  
17 either the '885 Patent or the '966 Patent is rendered obvious based on Sonos's 2005 system in view  
18 of Yamaha DME, it is not clear what relevance these sub-sections have to Dr. Schonfeld's  
19 obviousness opinions. Nevertheless, to the extent that Dr. Schonfeld later attempts to and is  
20 permitted to offer an opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based  
21 on Sonos's 2005 system in view of Yamaha DME, I disagree.

22 775. As an initial matter, Dr. Schonfeld fails to set forth any bases or reasoning that  
23 would support an opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on  
24 Sonos's 2005 system in view of Yamaha DME. *See* Schonfeld Op. Report at ¶¶ 966-978. Instead,  
25 Dr. Schonfeld only discusses Yamaha DME in the context of certain limitations of Asserted Claim  
26 1 of the '885 Patent, without providing any explanation as to how that discussion applies to  
27 Asserted Claim 1 of the '966 Patent.

28 776. Additionally, Dr. Schonfeld's discussion of Yamaha DME that he includes in his

1 analysis of Asserted Claim 1 of the '885 Patent as compared to Sonos's 2005 system suffers from  
2 a number of flaws, many of which are applicable to the Asserted Claims of the '966 Patent as well.

3 777. First, various materials related to the Yamaha DME System, including the DME  
4 Manual that Dr. Schonfeld primarily relies on in his discussion of the Yamaha DME System, are  
5 cited on the face of the '966 Patent, which shows that the Yamaha DME System was considered  
6 by the USPTO during prosecution of the '966 Patent and that the '966 Patent (including Asserted  
7 Claim 1) was allowed to issue over the Yamaha DME System. *See* '966 Patent at 1, 17. In fact,  
8 during prosecution of the '966 Patent, the Examiner acknowledged that "DME does not explicitly  
9 teach the inclusion, exclusion, etc. of particular enumerated first, second, etc. players of the set of  
10 available players to form, create, save, recall etc. a particular first, second, etc. grouping..." *See*  
11 July 5, 2019 Office Action at p. 4. Additionally, after considering Sonos's claim amendments and  
12 arguments for why Yamaha DME does not teach the claimed "zone scene" technology of the '966  
13 Patent (*see* August 23, 2019 Response to Office Action), the Examiner allowed the '966 Patent  
14 (including Asserted Claims 1, 2, 4, 6, 8, 9, 10, 12, 14, 16) to issue over Yamaha DME and in the  
15 Reasons for Allowance, the Examiner stated that "the prior art," including "DME," "does not  
16 reasonably teach the subject matter of the independent claims" (*see* September 5, 2019 Notice of  
17 Allowance). Since the USPTO already considered the Yamaha DME System, I understand that  
18 Dr. Schonfeld and Google have the added burden of overcoming the deference that is due to a  
19 qualified government agency, such as the USPTO, that is presumed to have properly done its job  
20 based on its expertise in interpreting references, its understanding of the level of ordinary skill in  
21 the art, and its duty to issue only valid patents. However, it is my opinion that Dr. Schonfeld  
22 failed to satisfy this added burden.

23 778. Second, the Yamaha DME System fails to disclose or suggest the claimed "zone  
24 scene" functionality that was missing from Sonos's 2005 system.

25 779. As discussed above, the Yamaha DME System included "one or more DME units  
26 and/or SP2060 units" and had a "control space" that was "logically organized using the concepts  
27 of 'Area,' 'Zone,' and 'Device Group.'" DME Manual at p. 3. The DME Manual further describes  
28 these concepts as follows:

The space covered by the entire system is the “Area”, while independent sonic spaces within that Area are called “Zone”. A group of DME or SP2060 units assigned to the same function are considered a “Device Group”. An Area is comprised of one or more Zones, and each Zone can include up to 32 Device Groups. A single Device Group can include as many as 16 devices. Each Device Group has one “Group Master”.

DME Manual at p. 3.

780. As further discussed above, the Yamaha DME System also disclosed concepts of “Components”, “Configurations,” “Preset Parameters,” and “Scenes,” which are described in the DME Manual as follows:

■ **Components**

Any independent signal-processing block, such as an equalizer, compressor, input/output module, or external device control object is a “Component”.

■ **Configurations**

A “Configuration” is group of components, including their placement and interconnections.

■ **Preset Parameters**

The set of parameters for all components in a Configuration is know as the Configuration’s “Preset Parameters”.

■ **Scenes**

A Configuration and its Preset Parameters are a “Scene”.

DME Manual at p. 4-5; *see also id.* at p. 6 (describing “Scenes” as “[t]he information required to switch audio data processing setups” and describing “Configurations” as “Data for Each Device” that comprises “[a] combination of the audio signal processing, audio input/ output, and external device control components and their interconnections, created to create the desired audio system”).

781. However, based on my review of the evidence cited by Dr. Schonfeld for the Yamaha DME system, it is my opinion that none of these concepts meets the requirements of a “zone scene.” For instance, the evidence I have reviewed does not disclose or suggest that any of these concepts amounts a pre-saved group that was available to be *later invoked on demand for synchronous playback* at some time after creation, which is a fundamental requirement of the claimed “zone scenes.” Further, the evidence I have reviewed does not disclose or suggest that any of these concepts amounts a pre-saved group that was *able to exist in an inactive state* in which the pre-saved group was available for selection by a user but the group members could still be used



1 for individual audio playback (or as part of another group), which is another fundamental  
2 requirement of the claimed “zone scenes.” Further yet, the evidence I have reviewed does not  
3 disclose or suggest that any of these concepts amounts a pre-saved group comprising group  
4 members that are also able to be added to other pre-saved groups that co-exist with the pre-saved  
5 group such that multiple co-existing pre-saved groups having common group members can be  
6 created and made available for selection. *See* DME Manual at p. 283 (stating that “[a] zone can  
7 include up to 32 device groups” and that “all devices *will belong to one* of those groups”). Still  
8 further, the evidence I have reviewed does not disclose or suggest that any of these concepts  
9 amounts a pre-saved group comprising group members that become “*configured for synchronous*  
10 *playback*” by becoming “configured to coordinate” with one another to “output media in  
11 synchrony” when the pre-saved group is “invoked.” In fact, the evidence I have reviewed never  
12 discloses or suggest that the “DME units and/or SP2060 units” could engage in “synchronous  
13 playback” at all, let alone that “DME units and/or SP2060 units” would have ever become  
14 “configured to coordinate” with one another in order to achieve “synchronous playback.”

15 782. As explained above, Dr. Schonfeld does not offer any opinions as to whether the  
16 Yamaha DME System discloses or suggests any of the claim limitations of Asserted Claim 1 of  
17 the '966 Patent. Instead, Dr. Schonfeld only discusses the Yamaha DME System in connection  
18 with claim limitations 1.6-1.7 and 1.9-1.10 of Asserted Claim 1 of the '885 Patent. Schonfeld Op.  
19 Report at p. 285 (unnumbered paragraph between ¶¶ 371-372) and ¶¶ 406, 448, 458. However,  
20 nothing in Dr. Schonfeld’s discussion of the Yamaha DME System in the context of claim  
21 limitations 1.6-1.7 and 1.9-1.10 of Asserted Claim 1 of the '885 Patent alters my opinion that the  
22 Yamaha DME system did not have **any** functional capability for creating or invoking a “zone  
23 scene” – let alone the specific controller-side “zone scenes” functionality required by claim  
24 limitations 1.4-1.11 of Asserted Claim 1 of the '966 Patent or the additional limitations of Asserted  
25 Claims 2, 4, 6, and 8 of the '966 Patent.

26 783. In fact, Dr. Schonfeld merely repeats the same paragraph regarding the Yamaha  
27 DME system for each of claim limitations 1.6-1.7 and 1.9-1.10 of Asserted Claim 1 of the '885  
28 Patent, which is as follows



1 It would also have been obvious to modify the Sonos System with the Yamaha  
2 system to add this claim limitation, to the extent it is not disclosed. This is at least  
3 because Yamaha discloses that a speaker can be part of multiple groups, and in  
4 order for a speaker to be part of two zone scenes or two groups at the same time,  
5 the zone scenes or zone groups must be able to be created separately from any  
6 invocation step. In addition, a POSITA would have been motivated to combine  
7 Yamaha with the Sonos System at least because users of playback systems  
8 considered Yamaha as an alternative to the Sonos System. See e.g., SONOS-  
9 SVG2-00032289, SONOS- SVG2-00033695, SONOS-SVG2-00053679. As I  
10 described e.g. in Section X (and incorporate herein by reference), the Yamaha  
11 system discloses conventional speaker grouping, including multiple speakers that  
12 could be grouped into areas, which could then be divided into zones, which could  
13 also be divided into device groups, with master and slave devices in those groups.  
14 See e.g., DME Manual at 3. at 183. The DME system disclosed creating “scenes”  
15 that could be named, saved, and recalled, and included particular configurations  
16 and preset parameters and were used in conjunction with the areas and zones. See  
17 e.g., DME Manual at 5-6, 25-26, 55.

18 Schonfeld Op. Report at p. 285 (unnumbered paragraph between ¶¶ 371-372) and ¶¶ 406, 448, 458

19 784. However, there is nothing in this paragraph explaining how any of the  
20 aforementioned concepts meets the requirements of a “zone scene.”<sup>30</sup> In fact, if anything, Dr.  
21 Schonfeld’s statement that “the Yamaha system discloses *conventional speaker grouping*”  
22 supports the opposite conclusion.

23 785. Further, even setting aside the fact that none of the aforementioned concepts  
24 amounts to a “zone scene,” Dr. Schonfeld fails to identify any functionality of the Yamaha DME  
25 system that would satisfy the other aspects of Asserted Claim 1 of the ’966 Patent under Dr.  
26 Schonfeld’s apparent mapping.

27 786. For example, Dr. Schonfeld fails to identify any functionality of the Yamaha DME  
28 system that amounts to a “computing device” causing an “indication” of a “zone scene” to be  
transmitted to a “DME unit” or “SP2060 unit,” as required by claim limitations 1.6 and 1.8 of  
Asserted Claim 1 of the ’966 Patent under Dr. Schonfeld’s apparent mapping.

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<sup>30</sup> While Dr. Schonfeld generally points out that the DME manual discloses a concept called a  
“scene,” a “scene” in the Yamaha DME system did not comprise user-customized, pre-saved group  
and thus was distinctly different from a “zone scene.” Instead, as explained above, the DME  
manual describes a “scene” as information that defines a “configuration” of internal “signal-  
processing block[s]” of a one or more “DME and/or SP2060 units” along with a “corresponding  
set of parameters,” which does not include any definition of user-customized, pre-saved group that  
can be later invoked on demand for synchronous playback. DME Manual at 4-6.

1           787. As another example, Dr. Schonfeld fails to identify any functionality of the Yamaha  
2 DME system that amounts to a “computing device” “displaying a representation of the first zone  
3 scene and a representation of the second zone scene” and then “while displaying the representation  
4 of the first zone scene and the representation of the second zone scene, receiving a third request to  
5 invoke the first zone scene,” as required by claim limitations 1.9-1.10 of Asserted Claim 1 of the  
6 ’966 Patent under Dr. Schonfeld’s apparent mapping.

7           788. As yet another example, Dr. Schonfeld fails to identify any functionality of the  
8 Yamaha DME system that amounts to a “computing device” receiving a “request to invoke” a  
9 “zone scene,” and then based on that “request,” causing a first “DME unit” (or “SP2060 unit”) to  
10 “transition from operating in the standalone mode to operating in accordance with [a] first  
11 predefined grouping of zone players such that the first [‘DME unit’] is configured to coordinate  
12 with at least [a second ‘DME unit’] to output media in synchrony with output of media by at least  
13 the second [‘DME unit’],” as required by claim limitations 1.10-1.11 of Asserted Claim 1 of the  
14 ’966 Patent under Dr. Schonfeld’s apparent mapping.

15           789. As still example, Dr. Schonfeld fails to identify any functionality of the Yamaha  
16 DME system that amounts to a “computing device” receiving a “request to invoke” a second “zone  
17 scene” at a time when a first “zone scene” is invoked such that the “DME units” (or “SP2060  
18 units”) in the first “zone scene” are “configured to coordinate” with one another “to play back  
19 media in synchrony,” and then based on the “request,” causing a first “DME unit” to “(a) cease to  
20 operate in accordance with the first zone scene such that the first [‘DME unit’] is no longer  
21 configured to coordinate with at least the second [‘DME unit’] to output media in synchrony with  
22 output of media by at least the second [‘DME unit’] and (b) begin to operate in accordance with  
23 the second zone scene such that the first [‘DME unit’] is configured to coordinate with at least [a  
24 third ‘DME unit’ in the second zone scene] to output media in synchrony with output of media by  
25 at least the third [‘DME unit’],” as required by Asserted Claim 2 of the ’966 Patent under Dr.  
26 Schonfeld’s apparent mapping.

27           790. As a further example, Dr. Schonfeld fails to identify any functionality of the  
28 Yamaha DME system that amounts to a “computing device” causing a “zone scene” to be stored

1 at a “DME unit” (or “SP2060 unit”) in the “zone scene,” as required by Asserted Claim 4 of the  
2 ’966 Patent under Dr. Schonfeld’s apparent mapping.

3 791. Thus, even if a POSITA in 2005-06 were to modify and combine Sonos’s 2005  
4 system with the identified functionality of the Yamaha DME System, such a hypothetical system  
5 still would not achieve either the specific player-side “zone scenes” functionality required by  
6 Asserted Claim 1 of the ’885 Patent or the specific controller-side “zone scenes” functionality  
7 required by the Asserted Claims of the ’966 Patent that Dr. Schonfeld failed to analyze.

8 792. Third, as demonstrated by the lone paragraph reproduced above, Dr. Schonfeld has  
9 failed to provide any explanation as to what specific modification(s) of Sonos’s 2005 system he is  
10 proposing or how Sonos’s 2005 system would have actually been modified to combine it with the  
11 identified functionality of the Yamaha DME System – let alone how that alleged combination  
12 would have achieved the claimed invention. *See* Schonfeld Op. Report at unnumbered ¶ at p. 285  
13 and ¶¶ 406, 448, 458.

14 793. Fourth, I disagree that a POSITA in 2005-06 would have been motivated to modify  
15 Sonos’s 2005 system to combine it with the identified functionality of the Yamaha DME System.  
16 As discussed above, Sonos’s 2005 system already included ad-hoc “zone group” functionality that  
17 allowed the ZonePlayers to be grouped together on demand for synchronous playback (albeit in a  
18 different way than the claimed “zone scenes” functionality). The evidence I have seen shows that this  
19 ad-hoc “zone group” functionality was being praised throughout the industry. *See, e.g.*, GOOG-  
20 SONOS-NDCA-00108095 at 365 (disclosing that Sonos’s system in 2006 was “pure heaven” and  
21 touting that “[y]ou can perform some pretty sophisticated stunts using that remote, like directing  
22 different streams of music to different rooms, linking several rooms so that they all play the same  
23 music....”); SONOS-SVG2-00234176 at 76-77 (Feb. 3, 2005 PC Magazine article stating Sonos’s  
24 ZP100 “is the first digital audio hub we can recommend without reservation. . . . It can play the same  
25 music throughout the house, perfectly synchronized. Even though that may seem drop-dead simple,  
26 other hubs don’t do it. And you can join multiple rooms to play the same music . . . on the fly.”);  
27 SONOS-SVG2-00227422 (March 22, 2005 PC Magazine article stating the same); SONOS-SVG2-  
28 00234162 at 62-64 (Feb. 24, 2005 Wall Street Journal article stating “[t]he Sonos system is easily the

1 best music-streaming product I have seen and tested,” and “[i]t’s the Lexus of the category” at least  
2 because “[t]he system works in multiple rooms of a home, allowing you to play . . . the same songs, in  
3 each room simultaneously . . . . you can group the ‘Zones,’ so several receive the same music  
4 simultaneously.”); SONOS-SVG2-00234165 (listing various “[a]wards, accolades and achievements”  
5 by Sonos in 2004-2006); SONOS-SVG2-00234171 (same); SONOS-SVG2-00234181 (2005 Playlist  
6 Magazine article stating “[y]ou can control each ZonePlayer independently of the others, or you can  
7 sync all of them for full-house entertainment. The result? The music you want, in whatever rooms you  
8 want -- the whole-house-music thing done right . . . . Where the Sonos system stands out from similar  
9 systems is in its zone management. Using the Controller’s Zone menu, you can easily link zones to  
10 play the same music in sync . . . .”); SONOS-SVG2-00234182 at 84 (Dec. 2005 LA Audio file article  
11 stating “[u]sing the Link Zone feature, users can link some or all of the listening zones to a single  
12 group. This is particularly useful when having a party or when one might be moving from one room  
13 to another within the house and would like to hear the same music.”), at 86 (“Having seen so many  
14 options for distributing audio in today’s homes, I can’t think of a better all-around product than the  
15 Sonos Digital Music System.”). And conversely, I have not seen any evidence suggesting that a  
16 POSITA in 2005-06 would have recognized any particular problem with Sonos’s ad-hoc “zone group”  
17 functionality that would have led such a POSITA to consider a different mechanism for grouping  
18 ZonePlayers in Sonos’s 2005 system on demand for synchronous playback – let alone would have led  
19 such a POSITA to implement the identified functionality of the Yamaha DME System. For at least  
20 these reasons, I disagree that a POSITA in 2005-06 would have been motivated to replace the existing  
21 ad-hoc “zone group” functionality of Sonos’s 2005 system with the identified functionality of the  
22 Yamaha DME System, particularly in view of the time, effort, and cost that would have been required  
23 to overhaul the grouping mechanism of Sonos’s 2005 system.

24 794. Nevertheless, in his Opening Report, Dr. Schonfeld states that “a POSITA would  
25 have been motivated to combine Yamaha with the Sonos System at least because users of playback  
26 systems considered Yamaha as an alternative to the Sonos System.” *See* Schonfeld Op. Report at  
27 unnumbered ¶ at p. 285 and ¶¶ 406, 448, 458. I disagree.

28 795. As an initial matter, this generic statement fails to establish why a POSITA in 2005-

1 06 would have been motivated to make any modification to Sonos's 2005 system at all – let alone  
2 why a POSITA in 2005-06 would have been motivated to combine Sonos's 2005 system with the  
3 Yamaha DME System to the include the functionality identified by Dr. Schonfeld.

4 796. Further, none of the three documents that Dr. Schonfeld cites to support this  
5 assertion even mention the Yamaha DME System. *See* SONOS-SVG2-00032289, SONOS-  
6 SVG2-00033695, SONOS-SVG2-00053679. Instead, SONOS-SVG2-00032289 appears to be an  
7 internal Sonos document dated November 25, 2003 that references a different “Yamaha Music  
8 Cast” product and distinguishes that product from the Sonos system being developed at the time,  
9 SONOS-SVG2-00033695 is an undated “Sonos Owner Survey” that asks Sonos customers if they  
10 considered the brand Yamaha – without any mention of a specific Yamaha product – before buying  
11 a Sonos system, and SONOS-SVG2-00053679 is an August 2021 “Sonos Bi-Annual Half Note  
12 Tracker” that identifies Yamaha – without any mention of a specific Yamaha product – among a  
13 number of different companies including Google as operating in the audio space. Accordingly, I  
14 disagree that these documents support Dr. Schonfeld's assertion that “a POSITA would have been  
15 motivated to combine” functionality of the Yamaha DME System with Sonos's 2005 system, let  
16 alone modify Sonos's 2005 system to include the functionality identified by Dr. Schonfeld.  
17 Additionally, SONOS-SVG2-00033695 is an undated and SONOS-SVG2-00053679 is dated  
18 August 2021, which serves as an additional reason why these documents fail to support Dr.  
19 Schonfeld's assertion as to whether a POSITA in the **2005-06** would have allegedly found it  
20 obvious to combine Sonos's 2005 system with the identified functionality of the Yamaha DME  
21 System.

22 797. Further yet, even if these documents did reference the Yamaha DME System as an  
23 “alternative” to Sonos's 2005 system, I disagree that this alone would show that “a POSITA would  
24 have been motivated to combine” the identified functionality of the Yamaha DME System with  
25 Sonos's 2005 system, let alone modify Sonos's 2005 system to include the functionality identified  
26 by Dr. Schonfeld.

27 798. I have also seen evidence of affirmative reasons why a POSITA would not have  
28 been motivated to combine Sonos's 2005 system with the identified functionality of the Yamaha

1 DME system. For instance, as explained above, the Yamaha DME system that has a different  
2 system architecture than Sonos's 2005 system that was designed for a different purpose than  
3 Sonos's 2005 system. Given this difference in the system architectures, a POSITA would have  
4 been dissuaded from modifying Sonos's 2005 system to combine it with the functionality of the  
5 Yamaha DME system.

6 799. Finally, because there is no evidence that a POSITA in 2005-06 would have been  
7 motivated to modify Sonos's 2005 system to combine it with the identified functionality of the  
8 Yamaha DME System, it appears that Dr. Schonfeld has used the asserted claims as a roadmap to  
9 reach his conclusion that a POSITA would have found aspects of the claimed invention obvious  
10 based on Sonos's 2005 system in combination with the Yamaha DME System, which I understand  
11 to be improper. *See* Schonfeld Op. Report at unnumbered ¶ at p. 285 and ¶¶ 406, 448, 458.

12 800. Thus, for these reasons, it is my opinion that Asserted Claim 1 of the '966 Patent is  
13 not rendered obvious by Sonos's 2005 system in combination with the Yamaha DME System.

14 **(h) Sonos's 2005 System in view of Rajapakse**

15 801. In his Opening Report, Dr. Schonfeld never offers an opinion that any Asserted  
16 Claim of either the '885 Patent or the '966 Patent is rendered obvious based on Sonos's 2005  
17 system in view of Rajapakse, but in his limitation-by-limitation obviousness analysis of Asserted  
18 Claim 1 of the '885 Patent as compared to Sonos's 2005 system, Dr. Schonfeld does include sub-  
19 sections discussing Rajapakse in connection with claim limitations 1.7 and 1.8 of Asserted Claim  
20 1 of the '885 Patent. *Compare* Schonfeld Op. Report at ¶¶ 6, 269, 965 (summarizing Dr.  
21 Schonfeld's "Sonos System" obviousness grounds without mentioning Rajapakse) *with id.* at ¶¶  
22 385-395, 424-431 (discussing Rajapakse as part of Dr. Schonfeld's obviousness analysis for  
23 Asserted Claim 1 of the '885 Patent as compared to Sonos's 2005 system).

24 802. Given that Dr. Schonfeld has not offered an opinion that any Asserted Claim of  
25 either the '885 Patent or the '966 Patent is rendered obvious based on Sonos's 2005 system in view  
26 of Rajapakse, it is not clear what relevance these sub-sections have to Dr. Schonfeld's obviousness  
27 opinions. Nevertheless, to the extent that Dr. Schonfeld later attempts to and is permitted to offer  
28 an opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on Sonos's 2005



1 system in view of Rajapakse, I disagree.

2 803. As an initial matter, Dr. Schonfeld fails to set forth any bases or reasoning that  
3 would support an opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on  
4 Sonos's 2005 system in view of Rajapakse. See Schonfeld Op. Report at ¶¶ 966-978. Instead,  
5 Dr. Schonfeld only discusses Rajapakse in the context of certain limitations of Asserted Claim 1  
6 of the '885 Patent, without providing any explanation as to how that discussion applies to Asserted  
7 Claim 1 of the '966 Patent.

8 804. Additionally, as I previously explained in my '885 Rebuttal Report, Dr. Schonfeld's  
9 discussion of Rajapakse that he includes in his analysis of Asserted Claim 1 of the '885 Patent as  
10 compared to Sonos's 2005 system suffers from a number of flaws, many of which are applicable  
11 to the Asserted Claims of the '966 Patent as well.

12 805. First, Dr. Schonfeld has failed to establish that Rajapakse qualifies as prior art to  
13 any claim of either the '885 Patent or the '966 Patent. In fact, Dr. Schonfeld failed to even identify  
14 a particular subsection of 35 U.S.C. § 102 under which Rajapakse would qualify as prior art. With  
15 that said, I understand from Google's Invalidity Contentions that Google has asserted Rajapakse  
16 as alleged prior art under 35 U.S.C. § 102(a) and (b) (Google's Invalidity Contentions, Ex. 885-  
17 3), but my understanding is that Rajapakse does not qualify as prior art under §102(a) or (b).

18 806. In particular, Rajapakse was not filed until July 13, 2007 and did not publish until  
19 August 7, 2012, whereas the claimed invention was conceived by December 21, 2005 and is  
20 entitled to a priority date of September 12, 2006,. Thus, Rajapakse cannot qualify as prior art to  
21 the '885 Patent or the '966 Patent based on Rajapakse's own filing date. Moreover, while I  
22 understand that Rajapakse claims priority to a provisional application that was filed on July 15,  
23 2006, which is before the September 12, 2006 priority date of the '885 and '966 Patents, I  
24 understand that a party seeking to use a provisional application to show an earlier prior art date  
25 bears the burden of proving that the earlier-filed provisional application adequately supports the  
26 relied-upon disclosure from reference patent. However, not only did Dr. Schonfeld fail to address  
27 whether Rajapakse's provisional application adequately supports Rajapakse, he also affirmatively  
28 relied on disclosure from Rajapakse that is not found in the provisional application. For instance,



1 Dr. Schonfeld relied on Rajapakse's disclosure that "[z]ones may overlap and may include other  
2 zones" and "[e]ach media renderer 203 is assigned to one or more zones" in support of his opinion  
3 that "Rajapakse discloses overlapping groups or zones, and therefore overlapping speakers within  
4 those zones." *See* Schonfeld Op. Report at ¶¶ 392-393. However, I have not found this same  
5 disclosure in Rajapakse's provisional application, and Dr. Schonfeld has not identified where it is  
6 disclosed. *See* SONOS-SVG2-00226956. For at least these reasons, it is my opinion that Dr.  
7 Schonfeld has failed to establish that Rajapakse qualifies as prior art to claim 1 of the '885 Patent.

8 807. Second, not only was Rajapakse cited on the face of several other Sonos patents as  
9 acknowledged by Dr. Schonfeld (Schonfeld Op. Report at ¶ 385), Rajapakse was also cited on the  
10 face of the '966 Patent. '966 Patent at 5. This shows that Rajapakse was considered by the USPTO  
11 during prosecution of the '885 Patent and that the '966 Patent (including Asserted Claim 1) was  
12 allowed to issue over Rajapakse. Since the USPTO already considered Rajapakse, I understand  
13 that Dr. Schonfeld and Google have the added burden of overcoming the deference that is due to  
14 a qualified government agency, such as the USPTO, that is presumed to have properly done its job  
15 based on its expertise in interpreting references, its understanding of the level of ordinary skill in  
16 the art, and its duty to issue only valid patents. However, it is my opinion that Dr. Schonfeld failed  
17 to satisfy this added burden.

18 808. Third, Rajapakse fails to disclose or suggest the claimed "zone scene" functionality  
19 that was missing from Sonos's 2005 system.

20 809. As discussed above, Rajapakse discloses a system that "performs provisioning  
21 dynamically as a control point and/or the media source enters a new zone," which is defined as "a  
22 physical space that a number of media renderers belong to and within which the media renderers  
23 are physically located," and "[a]s a control point or media source moves to a new zone, media  
24 renderers are dynamically detected, resources are allocated, and the system is configured for  
25 playback on media renderers within the new zone without noticeable interruption of the streaming  
26 and rendering of the media." Rajapakse at 1:50-55.

27 810. However, Rajapakse's system did not have **any** functional capability for creating or  
28 invoking a "zone scene" – let alone the specific controller-side "zone scenes" functionality

1 required by claim limitations 1.4-1.11 of Asserted Claim 1 of the '966 Patent.

2 811. As explained above, Dr. Schonfeld does not offer any opinions as to whether  
3 Rajapakse discloses or suggests any of the claim limitations of Asserted Claim 1 of the '966 Patent.  
4 Instead, Dr. Schonfeld only discusses Rajapakse in connection with claim limitations 1.7-1.8 of  
5 Asserted Claim 1 of the '885 Patent, which require the claimed “first zone player” to be  
6 programmed with the functional capability to “receiv[e], from [a] network device over [a] data  
7 network, a second indication that the first zone player has been added to a second zone scene”  
8 while the “first zone player” is “operating in a standalone mode” and then “after receiving the first  
9 and second indications, continu[e] to operate in the standalone mode until a given one of the first  
10 and second zone scenes has been selected for invocation.” Schonfeld Op. Report at ¶¶ 385-395,  
11 424-431. However, nothing in Dr. Schonfeld’s discussion of Rajapakse in the context of claim  
12 limitations 1.7-1.8 of Asserted Claim 1 of the '885 Patent alters my opinion that Rajapakse’s  
13 system did not have *any* functional capability for creating or invoking a “zone scene” – let alone  
14 the specific controller-side “zone scenes” functionality required by claim limitations 1.4-1.11 of  
15 Asserted Claim 1 of the '966 Patent.

16 812. The underlying premise of Dr. Schonfeld’s theories regarding Rajapakse appears  
17 to be that a “zone” as disclosed in Rajapakse amounts to a “zone scene.” See Schonfeld Op. Report  
18 at ¶¶ 385-395, 424-431. I disagree for several reasons.

19 813. First, Rajapakse’s “zone” does not comprise a user-customized, pre-saved group  
20 of “zone players” that is *able to exist in an inactive state in which the group members can be used*  
21 *for individual playback* while the pre-saved group remains available for selection by a user so that  
22 it can be later invoked on demand for synchronous playback, which are requirements of a “zone  
23 scene.” Instead, I understand Rajapakse’s disclosure to be saying that once “media renderer” has  
24 been added to a “zone,” it is no longer available to be used for individual audio playback. This  
25 not only serves as a reason why a “zone” is not a “zone scene,” but also establishes that once a  
26 “media renderer” is added to a first “zone,” it cannot thereafter be added to a second “zone” at a  
27 time when the first “zone” remains in existence but the “media renderer” is in a “standalone mode,”  
28 as required by claim limitations 1.4 and 1.7-1.8.

1           814. Second, Rajapakse's "zone" is not a "zone scene" for the additional reason that the  
2 "media renderers" in a "zone" do not become "*configured for synchronous playback*" when the  
3 "zone" is selected. To the contrary, it is the "distribution server" that becomes configured to enable  
4 "synchroniz[ation]" of the "rendition of the stream," while the "media renderers" remain in the  
5 same configuration both before and after a "zone" is selected. See Rajapakse at 11:60-65. And  
6 for this same reason, Rajapakse likewise fails to disclose or suggest that the "media renderers" in  
7 a "zone" are "configured to coordinate . . . to output media in synchrony with" one another when  
8 the "zone" is selected.

9           815. Third, Rajapakse fails to disclose or suggest any capability for a user to assign a  
10 thematic name to a "zone," which fails to meet the additional "according to a common theme"  
11 requirement of Google's proposed construction of a "zone scene."

12           816. Further, even setting aside these differences between Rajapakse's "zone" and a  
13 "zone scene," Dr. Schonfeld fails to identify any functionality of Rajapakse's system that would  
14 satisfy the other aspects of Asserted Claim 1 of the '966 Patent under Dr. Schonfeld's apparent  
15 mapping.

16           817. For example, Dr. Schonfeld fails to identify any functionality of Rajapakse's  
17 system that amounts to a "computing device" causing an "indication" of a "zone" to be transmitted  
18 to a "media renderer," as required by claim limitations 1.6 and 1.8 of Asserted Claim 1 of the '966  
19 Patent under Dr. Schonfeld's apparent mapping. Instead, Dr. Schonfeld merely identifies certain  
20 passages of Rajapakse teaching that a "media renderer" may be "assigned to one or more zones"  
21 that are each "typically identified with a Zone Identifier (ZID)" or have a "set of assigned zone  
22 identifiers (ZIDs)." Rajapakse at 6:2-4, 7:52-54. However, these teachings of Rajapakse do not  
23 qualify as prior art because they were not included in the provisional application. Moreover, even  
24 if these teachings did qualify as prior art and one were to consider such a ZID to be an "indication"  
25 of a "zone" these passages still fail to disclose or suggest that a device "serving as a controller for  
26 a networked media playback system" caused such a ZID to be transmitted to the "media renderer"  
27 – let alone that a device "serving as a controller for a networked media playback system"  
28 performed all of the other functions required by Asserted Claim 1 of the '966 Patent.

1           818. As another example, Dr. Schonfeld fails to identify any functionality of Rajapakse's  
2 system that amounts to a "computing device" "displaying a representation of the first ['zone'] and  
3 a representation of the second ['zone']" and then "while displaying the representation of the first  
4 ['zone'] and the representation of the second ['zone'], receiving a third request to invoke the first  
5 ['zone']," as required by claim limitations 1.9-1.10 of Asserted Claim 1 of the '966 Patent under  
6 Dr. Schonfeld's apparent mapping.

7           819. As yet another example, Dr. Schonfeld fails to identify any functionality of  
8 Rajapakse's system that amounts to a "computing device" receiving a "request to invoke" a  
9 "zone," and then based on that "request," causing a first "media renderer" to "transition from  
10 operating in the standalone mode to operating in accordance with [a] first predefined grouping of  
11 ['media renderers'] such that the first ['media renderer'] is configured to coordinate with at least  
12 [a second 'media renderer'] to output media in synchrony with output of media by at least the  
13 second ['media renderer']," as required by claim limitations 1.9-1.10 of Asserted Claim 1 of the  
14 '966 Patent under Dr. Schonfeld's apparent mapping. As still example, Dr. Schonfeld fails to  
15 identify any functionality of Rajapakse's system that amounts to a "computing device" receiving  
16 a "request to invoke" a second "zone" at a time when a first "zone" is invoked such that the "media  
17 renderers" in the first "zone" are "configured to coordinate" with one another "to play back media  
18 in synchrony," and then based on the "request," causing a first "media renderer" to "(a) cease to  
19 operate in accordance with the first ['zone'] such that the first ['media renderer'] is no longer  
20 configured to coordinate with at least the second ['media renderer'] to output media in synchrony  
21 with output of media by at least the second ['media renderer'] and (b) begin to operate in  
22 accordance with the second ['zone'] such that the first ['media renderer'] is configured to  
23 coordinate with at least [a third 'media renderer' in the second 'zone'] to output media in  
24 synchrony with output of media by at least the third ['media renderer']," as required by Asserted  
25 Claim 2 of the '966 Patent under Dr. Schonfeld's apparent mapping.

26           820. As a further example, Dr. Schonfeld fails to identify any functionality of  
27 Rajapakse's system that amounts to a "computing device" that is "serving as a controller" of the  
28 system causing a "zone" to be stored at a "media renderer" in the "zone," as required by Asserted

1 Claim 4 of the '966 Patent under Dr. Schonfeld's apparent mapping.

2 821. Further yet, Dr. Schonfeld's theory that Rajapakse discloses multiple "zone scenes"  
3 comprising "overlapping groups" appears to be based exclusively on this passage from Rajapakse:

4 A zone is a physical space that a number of media renderers belong to and within  
5 which the media renderers are physically located. Typically a zone is a listening  
6 space, a space where the audio from all the media renderers in the space can be  
7 heard. For example, all media renderers within a single auditorium will be in the  
8 same zone. Zones may overlap and may include other zones. For example a campus  
with multiple auditoriums can have a campus zone with multiple auditorium zones  
within it. Each media renderer 203 is assigned to one or more zones. Zones are  
typically identified with a Zone Identifier (ZID).

9 Rajapakse at 5:61-6:4 (cited at Schonfeld Op. Report at ¶ 392). However, I disagree that this  
10 passage supports Dr. Schonfeld's theories for at least the reasons that (i) this passage of Rajapakse  
11 does not qualify as prior art because it was not included in the provisional application, (ii)  
12 Rajapakse's "zone" does not meet the claimed requirements of a "zone scene" for the reasons  
13 explained above, and (iii) while this passage suggests that a "media renderer" could theoretically  
14 be "assigned" to more than one "zone," the rest of the disclosure fails to explain how this would  
15 actually work in Rajapakse's system, which is otherwise described throughout Rajapakse in the  
16 context of scenarios where each "media renderer" is only assigned to a single "zone" that has a  
17 corresponding "zone manager." *Id.* at 17:3-4 ("Each zone has a zone manager 210 that has  
18 registered and authenticated with the speakers in its physical zone"), 6:20-22 ("[T]he zone  
19 manager 210 holds information specific to a [single] zone, manages the media renderers 203 in  
20 the [single] zone"); *see also id.* at 17:5-7, 17:16-21, 18:35-45, 18:50-59.

21 822. Thus, even if a POSITA in 2005-06 were to modify and combine Sonos's 2005  
22 system with identified functionality of Rajapakse's system in the manner proposed by Dr.  
23 Schonfeld, such a hypothetical system still would not achieve either the specific player-side "zone  
24 scenes" functionality required by Asserted Claim 1 of the '885 Patent or the specific controller-  
25 side "zone scenes" functionality required by the Asserted Claims of the '966 Patent that Dr.  
26 Schonfeld failed to analyze.

27 823. Fourth, Dr. Schonfeld has failed to provide any explanation as to how Sonos's 2005  
28 system would have actually been modified to combine it with the identified functionality of

1 Rajapakse's system – let alone how that alleged combination would have achieved the claimed  
2 invention.

3 824. Fifth, I disagree that a POSITA in 2005-06 would have been motivated to modify  
4 Sonos's 2005 system to incorporate the identified functionality of Rajapakse's system. As  
5 discussed above, Sonos's 2005 system already included ad-hoc "zone group" functionality that  
6 allowed the ZonePlayers to be grouped together on demand for synchronous playback (albeit in a  
7 different way than the claimed "zone scenes" functionality). The evidence I have seen shows that this  
8 ad-hoc "zone group" functionality was being praised throughout the industry. *See, e.g.*, GOOG-  
9 SONOS-NDCA-00108095 at 365 (disclosing that Sonos's system in 2006 was "pure heaven" and  
10 touting that "[y]ou can perform some pretty sophisticated stunts using that remote, like directing  
11 different streams of music to different rooms, linking several rooms so that they all play the same  
12 music...."); SONOS-SVG2-00234176 at 76-77 (Feb. 3, 2005 PC Magazine article stating Sonos's  
13 ZP100 "is the first digital audio hub we can recommend without reservation. . . . It can play the same  
14 music throughout the house, perfectly synchronized. Even though that may seem drop-dead simple,  
15 other hubs don't do it. And you can join multiple rooms to play the same music . . . on the fly.");  
16 SONOS-SVG2-00227422 (March 22, 2005 PC Magazine article stating the same); SONOS-SVG2-  
17 00234162 at 62-64 (Feb. 24, 2005 Wall Street Journal article stating "[t]he Sonos system is easily the  
18 best music-streaming product I have seen and tested," and "[i]t's the Lexus of the category" at least  
19 because "[t]he system works in multiple rooms of a home, allowing you to play . . . the same songs, in  
20 each room simultaneously . . . . you can group the 'Zones,' so several receive the same music  
21 simultaneously."); SONOS-SVG2-00234165 (listing various "[a]wards, accolades and achievements"  
22 by Sonos in 2004-2006); SONOS-SVG2-00234171 (same); SONOS-SVG2-00234181 (2005 Playlist  
23 Magazine article stating "[y]ou can control each ZonePlayer independently of the others, or you can  
24 sync all of them for full-house entertainment. The result? The music you want, in whatever rooms you  
25 want -- the whole-house-music thing done right . . . . Where the Sonos system stands out from similar  
26 systems is in its zone management. Using the Controller's Zone menu, you can easily link zones to  
27 play the same music in sync . . . ."); SONOS-SVG2-00234182 at 84 (Dec. 2005 LA Audio file article  
28 stating "[u]sing the Link Zone feature, users can link some or all of the listening zones to a single

1 group. This is particularly useful when having a party or when one might be moving from one room  
2 to another within the house and would like to hear the same music.”), at 86 (“Having seen so many  
3 options for distributing audio in today’s homes, I can’t think of a better all-around product than the  
4 Sonos Digital Music System.”). And conversely, I have not seen any evidence suggesting that a  
5 POSITA in 2005-06 would have recognized any particular problem with Sonos’s ad-hoc “zone group”  
6 functionality that would have led such a POSITA to consider a different mechanism for grouping  
7 ZonePlayers in Sonos’s 2005 system on demand for synchronous playback – let alone would have led  
8 such a POSITA to implement the identified functionality of Rajapakse’s system. For at least these  
9 reasons, I disagree that a POSITA in 2005-06 would have been motivated to replace the existing ad-  
10 hoc “zone group” functionality of Sonos’s 2005 system with the identified functionality of  
11 Rajapakse’s system, particularly in view of the time, effort, and cost that would have been required to  
12 overhaul the grouping mechanism of Sonos’s 2005 system.

13 825. In his Opening Report, Dr. Schonfeld says that a POSITA would have found it  
14 obvious to combine Sonos’s 2005 system with Rajapakse for the sole reason that “Rajapakse was  
15 cited by many Sonos patents regarding speaker grouping, including patents from the same family  
16 as the ’885 patent” as well as third-party patents, including Google’s own patents, that are “closely  
17 related to the ’885 patent.” Schonfeld Op. Report at ¶ 385. However, these generic statements  
18 fail to establish why a POSITA in 2005-06 would have been motivated to make any modification  
19 to Sonos’s 2005 system at all – let alone why a POSITA in 2005-06 would have been motivated  
20 to combine Sonos’s 2005 system with Rajapakse in the specific manner proposed by Dr.  
21 Schonfeld.

22 826. I have also seen evidence of affirmative reasons why a POSITA would not have  
23 been motivated to combine Sonos’s 2005 system with the identified functionality of Rajapakse’s  
24 system. For instance, Rajapakse is directed to an entirely different system architecture than  
25 Sonos’s 2005 system that requires a number of different components to facilitate its “zone”  
26 functionality, including a “bridge renderer 205,” a “distribution server 204,” and a “zone manager  
27 210,” among others. *See* Rajapakse at FIGs. 2-5; *see also id.* at 11:7-18. Given the significant  
28 differences in the system architectures, a POSITA would have been dissuaded from modifying



1 Sonos's 2005 system to combine it with the identified functionality of Rajapakse, as adding  
2 Rajapakse's "zone" would have required the architecture of Sonos's 2005 system to be redesigned  
3 so that these additional components could be incorporated, which would have altered the principle  
4 of operation of Sonos's 2005 system.

5 827. Finally, because there is no evidence that a POSITA in 2005-06 would have been  
6 motivated to modify Sonos's 2005 system to combine it with the identified functionality of  
7 Rajapakse's, it appears that Dr. Schonfeld has used the asserted claims as a roadmap to reach his  
8 conclusion that a POSITA would have found the claimed invention obvious based on Sonos's 2005  
9 system in combination with Rajapakse, which I understand to be improper. *See* Schonfeld Op.  
10 Report, ¶ 385 ("Rajapakse was cited by many Sonos patents regarding speaker grouping, including  
11 patents from the same family as the '885 patent, indicating that persons of skill in the art recognized  
12 that Rajapakse was highly relevant to the claimed features.").

13 828. Thus, for these reasons, it is my opinion that Asserted Claim 1 of the '966 Patent is  
14 not rendered obvious by Sonos's 2005 system in combination with Rajapakse.

15 **(i) Sonos's 2005 System in view of Lindemann**

16 829. In his Opening Report, Dr. Schonfeld never offers an opinion that any Asserted  
17 Claim of either the '885 Patent or the '966 Patent is rendered obvious based on Sonos's 2005  
18 system in view of Lindemann, but in his limitation-by-limitation obviousness analysis of Asserted  
19 Claim 1 of the '885 Patent, Dr. Schonfeld does include sub-sections discussing Lindemann in  
20 connection with claim limitations 1.7 and 1.8 of Asserted Claim 1 of the '885 Patent. *Compare*  
21 Schonfeld Op. Report at ¶¶ 6, 269, 965 (summarizing Dr. Schonfeld's "Sonos System"  
22 obviousness grounds without mentioning Lindemann) *with id.* at ¶¶ 401-402, 432-433 (discussing  
23 Lindemann as part of Dr. Schonfeld's obviousness analysis for Asserted Claim 1 of the '885 Patent  
24 as compared to Sonos's 2005 system).

25 830. Given that Dr. Schonfeld has not offered an opinion that any Asserted Claim of  
26 either the '885 Patent or the '966 Patent is rendered obvious based on Sonos's 2005 system in view  
27 of Lindemann, it is not clear what relevance these sub-sections have to Dr. Schonfeld's  
28 obviousness opinions. Nevertheless, to the extent that Dr. Schonfeld later attempts to and is

1 permitted to offer an opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based  
2 on Sonos's 2005 system in view of Lindemann, I disagree.

3 831. As an initial matter, Dr. Schonfeld fails to set forth any bases or reasoning that  
4 would support an opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on  
5 Sonos's 2005 system in view of Lindemann. See Schonfeld Op. Report at ¶¶ 966-978. Instead,  
6 Dr. Schonfeld only discusses Lindemann in the context of certain limitations of Asserted Claim 1  
7 of the '885 Patent, without providing any explanation as to how that discussion applies to Asserted  
8 Claim 1 of the '966 Patent.

9 832. Additionally, as I previously explained in my '885 Rebuttal Report, Dr. Schonfeld's  
10 discussion of Lindemann that he includes in his analysis of Asserted Claim 1 of the '885 Patent as  
11 compared to Sonos's 2005 system suffers from a number of flaws, many of which are applicable  
12 to the Asserted Claims of the '966 Patent as well.

13 833. First, Lindemann was cited on the face of the '966 Patent, which shows that  
14 Lindemann was considered by the USPTO during prosecution of the '885 Patent and that the '966  
15 Patent (including Asserted Claim 1) was allowed to issue over Lindemann. '966 Patent at 7. Since  
16 the USPTO already considered Lindemann, I understand that Dr. Schonfeld and Google have the  
17 added burden of overcoming the deference that is due to a qualified government agency, such as  
18 the USPTO, that is presumed to have properly done its job based on its expertise in interpreting  
19 references, its understanding of the level of ordinary skill in the art, and its duty to issue only valid  
20 patents. However, it is my opinion that Dr. Schonfeld failed to satisfy this added burden.

21 834. Second, Lindemann fails to disclose or suggest the claimed "zone scene"  
22 functionality that was missing from Sonos's 2005 system.

23 835. As discussed above, Lindemann discloses a "digital wireless loudspeaker system"  
24 comprising "an audio transmission device for selecting and transmitting digital audio data, and  
25 wireless speakers for receiving the data and broadcasting sound," which may take the form of  
26 "loudspeakers" that each contain an "RF receive antenna" and an "RF receiver," among other  
27 components. Lindemann at Abstract, ¶¶ 11, 55. Lindemann further discloses that a "Group  
28 Selection Switch" may be provided that "allows a loudspeaker to be assigned to one of many

1 groups of loudspeakers,” and that there may be “status information contain[ing] commands to  
2 enable or disable a particular group of speakers” as well as “[a]nother status message [that]  
3 determines enabling of different speaker modes according to speaker group.” *Id.* at ¶¶ 64-66, FIG.  
4 18 (illustrating an example of a “Group Selection Switch 1800”).

5 836. However, even if one were to consider the “loudspeakers” in Lindemann’s “digital  
6 wireless loudspeaker system” to be “zone players” in a “networked media playback system,”  
7 Lindemann’s system did not have **any** functional capability for creating or invoking a “zone scene”  
8 – let alone the specific controller-side “zone scenes” functionality required by claim limitations  
9 1.4-1.11 of Asserted Claim 1 of the ’966 Patent or the additional limitations of Asserted Claims 2,  
10 4, 6, and 8 of the ’966 Patent.

11 837. As explained above, Dr. Schonfeld does not offer any opinions as to whether  
12 Lindemann discloses or suggests any of the claim limitations of Asserted Claim 1 of the ’966  
13 Patent. Instead, Dr. Schonfeld only discusses Lindemann in connection with claim limitations 1.7-  
14 1.8 of Asserted Claim 1 of the ’885 Patent, which require the claimed “first zone player” to be  
15 programmed with the functional capability to “receiv[e], from [a] network device over [a] data  
16 network, a second indication that the first zone player has been added to a second zone scene”  
17 while the “first zone player” is “operating in a standalone mode” and then “after receiving the first  
18 and second indications, continu[e] to operate in the standalone mode until a given one of the first  
19 and second zone scenes has been selected for invocation.” Schonfeld Op. Report at ¶¶ 401-402,  
20 432-433. However, nothing in Dr. Schonfeld’s discussion of Lindemann in the context of claim  
21 limitations 1.7-1.8 of Asserted Claim 1 of the ’885 Patent alters my opinion that Lindemann’s  
22 system did not have **any** functional capability for creating or invoking a “zone scene” – let alone  
23 the specific controller-side “zone scenes” functionality required by claim limitations 1.4-1.11 of  
24 Asserted Claim 1 of the ’966 Patent.

25 838. The underlying premise of Dr. Schonfeld’s theories regarding Lindemann appears  
26 to be that a “group” of “loudspeakers” as disclosed in Lindemann amounts to a “zone scene.” *See*  
27 Schonfeld Op. Report at ¶¶ 246-254, 281-287. I disagree for several reasons.

28 839. First, Lindemann’s “group” of “loudspeakers” does not comprise a user-

1 customized, pre-saved group of “zone players” that is able to exist in an inactive state in which the  
2 group members can be used for individual playback while the pre-saved group remains available  
3 for selection by a user so that it can be later invoked on demand for synchronous playback, which  
4 are requirements of a “zone scene.” . Rather, I understand Lindemann’s disclosure to be saying  
5 that once “loudspeaker” has been added to a “group,” that “group” is automatically activated such  
6 that the “loudspeaker” it is no longer available to be used for individual audio playback. This not  
7 only serves as a reason why a “group” of “loudspeakers” is not a “zone scene,” but also establishes  
8 that once a “loudspeaker” is added to a first “group,” it cannot thereafter be added to a second  
9 “group” at a time when the first “group” remains in existence but the “loudspeaker” is in a  
10 “standalone mode,” as required by claim limitations 1.4 and 1.7-1.8 of the ’966 Patent.

11 840. Second, Lindemann’s “group” of “loudspeakers” is not a “zone scene” for the  
12 additional reason that the “loudspeakers” in a “group” do not become “*configured for synchronous*  
13 *playback*” when the “group” is selected. And for this same reason, Lindemann likewise fails to  
14 disclose or suggest that the “loudspeakers” in a “group” are “configured to coordinate . . . to output  
15 media in synchrony with” one another when the “group” is selected.

16 841. Third, Lindemann’s “group” of “loudspeakers” is not a “zone scene” for the  
17 additional reason that it is not possible for a “loudspeaker” in one “group” to also be a member of  
18 different “group” that is available for selection by a user, which is another requirement of the  
19 claimed “zone scenes.” To the contrary, a “loudspeaker” could only be a member of one “group”  
20 that was in existence at any given time. *See* Lindemann at ¶ 64.

21 842. Fourth, Lindemann fails to disclose or suggest any capability for a user to assign a  
22 thematic name to a “group,” which fails to meet the additional “according to a common theme”  
23 requirement of Google's proposed construction of a “zone scene.”

24 843. Further, even setting aside these differences between Lindemann’s “group” and a  
25 “zone scene,” Dr. Schonfeld fails to identify any functionality of Lindemann’s system that would  
26 satisfy the other aspects of Asserted Claim 1 of the ’966 Patent under Dr. Schonfeld’s apparent  
27 mapping.

28 844. For example, Dr. Schonfeld fails to identify any functionality of Lindemann’s

1 system that amounts to a “computing device” causing an “indication” of a “group” to be  
2 transmitted to a “loudspeaker,” as required by claim limitations 1.6 and 1.8 of Asserted Claim 1  
3 of the ’966 Patent under Dr. Schonfeld’s apparent mapping.

4 845. As another example, Dr. Schonfeld fails to identify any functionality of  
5 Lindemann’s system that amounts to a “computing device” “displaying a representation of the first  
6 [‘group’] and a representation of the second [‘group’]” and then “while displaying the  
7 representation of the first [‘group’] and the representation of the second [‘group’], receiving a third  
8 request to invoke the first [‘group’],” as required by claim limitations 1.9-1.10 of Asserted Claim  
9 1 of the ’966 Patent under Dr. Schonfeld’s apparent mapping.

10 846. As yet another example, Dr. Schonfeld fails to identify any functionality of  
11 Lindemann’s system that amounts to a “computing device” receiving a “request to invoke” a  
12 “group,” and then based on that “request,” causing a first “loudspeaker” to “transition from  
13 operating in the standalone mode to operating in accordance with [a] first predefined grouping of  
14 [‘loudspeaker’] such that the first [‘loudspeaker’] is configured to coordinate with at least [a second  
15 ‘loudspeaker’] to output media in synchrony with output of media by at least the second  
16 [‘loudspeaker’],” as required by claim limitations 1.10-1.11 of Asserted Claim 1 of the ’966 Patent  
17 under Dr. Schonfeld’s apparent mapping.

18 847. As still example, Dr. Schonfeld fails to identify any functionality of Lindemann’s  
19 system that amounts to a “computing device” receiving a “request to invoke” a second “group” at  
20 a time when a first “group” is invoked such that the “loudspeakers” in the first “group” are  
21 “configured to coordinate” with one another “to play back media in synchrony,” and then based  
22 on the “request,” causing a first “loudspeaker” to “(a) cease to operate in accordance with the first  
23 [‘group’] such that the first [‘loudspeaker’] is no longer configured to coordinate with at least the  
24 second [‘loudspeaker’] to output media in synchrony with output of media by at least the second  
25 [‘loudspeaker’] and (b) begin to operate in accordance with the second [‘group’] such that the first  
26 [‘loudspeaker’] is configured to coordinate with at least [a third ‘loudspeaker’ in the second  
27 ‘group’] to output media in synchrony with output of media by at least the third [‘loudspeaker’],”  
28 as required by Asserted Claim 2 of the ’966 Patent under Dr. Schonfeld’s apparent mapping.

1 848. As a further example, Dr. Schonfeld fails to identify any functionality of  
2 Lindemann's system that amounts to a "computing device" causing a "group" to be stored at a  
3 "loudspeaker" in the "group," as required by Asserted Claim 4 of the '966 Patent under Dr.  
4 Schonfeld's apparent mapping.

5 849. Further yet, for at least the reason that a "group" of "loudspeakers" is not a "zone  
6 scene," I disagree that Lindemann's recitation in claim 9 of "selectively activating the speaker  
7 based on [a] speaker group to which the speaker is assigned" in response to "a control signal in the  
8 status data for assigning the speaker to [the] speaker group" amounts to causing an "indication" of  
9 a "zone scene" to be transmitted to a "zone player," as required by claim limitations 1.6 and 1.8  
10 of Asserted Claim 1 of the '966 Patent. In fact, this claim in Lindemann shows that a  
11 "loudspeaker" would automatically begin operating as part of Lindemann's "speaker group" as  
12 soon as it was "assigned" to that "speaker group," which further supports my opinion that the  
13 "group" discussed in Lindemann is not a "zone scene."

14 850. Still further, Dr. Schonfeld's theory that Lindemann discloses multiple "zone  
15 scenes" comprising "overlapping speaker groups" appears to be based exclusively on this passage  
16 from Lindemann:

17 Many homes and offices have multiple groups of loudspeakers—e.g. a group of  
18 loudspeakers in the living room and another group in the kitchen. The Group  
19 Selection Switch allows a loudspeaker to be assigned to one of many groups of  
loudspeakers.

20 Lindemann at ¶ 64. However, in addition to the fact that Lindemann's "group" is not a "zone  
21 scene," I fail to see how this passage discloses "overlapping speaker groups." In my opinion, this  
22 passage teaches the exact opposite – namely, that each "loudspeaker" can only be assigned to  
23 "*one*" *single* "group" at any given time.

24 851. For at least the reason that Lindemann's "group" is not a "zone scene," Lindemann  
25 fails to disclose or suggest the other functional limitations of Asserted Claim 1 of the '966 Patent  
26 as well.

27 852. Thus, even if a POSITA in 2005-06 were to modify and combine Sonos's 2005  
28 system with identified functionality of Lindemann's system in the manner proposed by Dr.

1 Schonfeld, such a hypothetical system still would not achieve either the specific player-side “zone  
2 scenes” functionality required by Asserted Claim 1 of the ’885 Patent or the specific controller-  
3 side “zone scenes” functionality required by the Asserted Claims of the ’966 Patent that Dr.  
4 Schonfeld failed to analyze.

5 853. Third, Dr. Schonfeld has failed to provide any explanation as to how Sonos’s 2005  
6 system would have actually been modified to combine it with the identified functionality of  
7 Lindemann’s system – let alone how that alleged combination would have achieved the claimed  
8 invention.

9 854. Fourth, I disagree that a POSITA in 2005-06 would have been motivated to modify  
10 Sonos’s 2005 system to combine it with the identified functionality of Lindemann’s system. As  
11 discussed above, Sonos’s 2005 system already included ad-hoc “zone group” functionality that  
12 allowed the ZonePlayers to be grouped together on demand for synchronous playback (albeit in a  
13 different way than the claimed “zone scenes” functionality). The evidence I have seen shows that this  
14 ad-hoc “zone group” functionality was being praised throughout the industry. *See, e.g.*, GOOG-  
15 SONOS-NDCA-00108095 at 365 (disclosing that Sonos’s system in 2006 was “pure heaven” and  
16 touting that “[y]ou can perform some pretty sophisticated stunts using that remote, like directing  
17 different streams of music to different rooms, linking several rooms so that they all play the same  
18 music....”); SONOS-SVG2-00234176 at 76-77 (Feb. 3, 2005 PC Magazine article stating Sonos’s  
19 ZP100 “is the first digital audio hub we can recommend without reservation. . . . It can play the same  
20 music throughout the house, perfectly synchronized. Even though that may seem drop-dead simple,  
21 other hubs don’t do it. And you can join multiple rooms to play the same music . . . on the fly.”);  
22 SONOS-SVG2-00227422 (March 22, 2005 PC Magazine article stating the same); SONOS-SVG2-  
23 00234162 at 62-64 (Feb. 24, 2005 Wall Street Journal article stating “[t]he Sonos system is easily the  
24 best music-streaming product I have seen and tested,” and “[i]t’s the Lexus of the category” at least  
25 because “[t]he system works in multiple rooms of a home, allowing you to play . . . the same songs, in  
26 each room simultaneously . . . . you can group the ‘Zones,’ so several receive the same music  
27 simultaneously.”); SONOS-SVG2-00234165 (listing various “[a]wards, accolades and achievements”  
28 by Sonos in 2004-2006); SONOS-SVG2-00234171 (same); SONOS-SVG2-00234181 (2005 Playlist



1 Magazine article stating “[y]ou can control each ZonePlayer independently of the others, or you can  
2 sync all of them for full-house entertainment. The result? The music you want, in whatever rooms you  
3 want -- the whole-house-music thing done right . . . . Where the Sonos system stands out from similar  
4 systems is in its zone management. Using the Controller’s Zone menu, you can easily link zones to  
5 play the same music in sync . . . .”); SONOS-SVG2-00234182 at 84 (Dec. 2005 LA Audio file article  
6 stating “[u]sing the Link Zone feature, users can link some or all of the listening zones to a single  
7 group. This is particularly useful when having a party or when one might be moving from one room  
8 to another within the house and would like to hear the same music.”), at 86 (“Having seen so many  
9 options for distributing audio in today’s homes, I can’t think of a better all-around product than the  
10 Sonos Digital Music System.”). And conversely, I have not seen any evidence suggesting that a  
11 POSITA in 2005-06 would have recognized any particular problem with Sonos’s ad-hoc “zone group”  
12 functionality that would have led such a POSITA to consider a different mechanism for grouping  
13 ZonePlayers in Sonos’s 2005 system on demand for synchronous playback – let alone would have led  
14 such a POSITA to implement the identified functionality of Lindemann’s system. For at least these  
15 reasons, I disagree that a POSITA in 2005-06 would have been motivated to replace the existing ad-  
16 hoc “zone group” functionality of Sonos’s 2005 system with the identified functionality of  
17 Lindemann’s system, particularly in view of the time, effort, and cost that would have been required  
18 to overhaul the grouping mechanism of Sonos’s 2005 system.

19 855. In his Opening Report, Dr. Schonfeld says that a POSITA would have found it  
20 obvious to combine Sonos’s 2005 system with Lindemann because “Lindemann was cited by many  
21 Sonos patents regarding speaker grouping” and “Lindemann and the Sonos System are both in the  
22 same field of endeavor.” Schonfeld Op. Report at ¶ 401. However, these generic statements fail  
23 to establish why a POSITA in 2005-06 would have been motivated to make any modification to  
24 Sonos’s 2005 system at all – let alone why a POSITA in 2005-06 would have been motivated to  
25 combine Sonos’s 2005 system with Lindemann in the specific manner proposed by Dr. Schonfeld.

26 856. I have also seen evidence of affirmative reasons why a POSITA would not have  
27 been motivated to combine Sonos’s 2005 system with the identified functionality of Lindemann.  
28 For instance, Lindemann’s “digital wireless loudspeaker system” is based on an entirely different

1 system architecture than Sonos's 2005 system that relies on a dedicated, RF-based "audio  
2 transmission device for selecting and transmitting digital audio data." Lindemann at Abstract, ¶  
3 11. Given the differences in the system architectures, it is my opinion that a POSITA would have  
4 been dissuaded from modifying Sonos's 2005 system to combine it with the identified  
5 functionality of Lindemann.

6 857. Finally, because there is no evidence that a POSITA in 2005-06 would have been  
7 motivated to modify Sonos's 2005 system to combine it with the identified functionality of  
8 Lindemann, it appears that Dr. Schonfeld has used the asserted claims as a roadmap to reach his  
9 conclusion that a POSITA would have found the claimed invention obvious based on Sonos's 2005  
10 system in combination with Lindemann, which I understand to be improper. *See* Schonfeld Op.  
11 Report at ¶ 401 ("Lindemann was cited by many Sonos patents regarding speaker grouping,  
12 including patents from the same family as the '885 patent, indicating that persons of skill in the art  
13 recognized that Lindemann was highly relevant to the claimed features.").

14 858. Thus, for these reasons, it is my opinion that Asserted Claim 1 of the '966 Patent is  
15 not rendered obvious by Sonos's 2005 system in combination with Lindemann.

16 **x. Summary**

17 859. As discussed above, there are a number of different limitations of Asserted Claim  
18 1 of the '966 Patent that are neither disclosed by Sonos's 2005 system nor rendered obvious by  
19 Sonos's 2005 system in view of the general knowledge of a POSITA, the Sonos Forums, Nourse,  
20 Millington, or any of the other secondary references identified by Dr. Schonfeld. Any one of these  
21 claim limitations serves as a separate basis for my opinion that Asserted Claim 1 of the '966 Patent  
22 is not rendered obvious by Sonos's 2005 system in view of the general knowledge of a POSITA,  
23 the Sonos Forums, Nourse, Millington, or any of the other secondary references identified by Dr.  
24 Schonfeld, and when taken collectively, these claim limitations provide even further support for  
25 my opinion that Asserted Claim 1 of the '966 Patent is not rendered obvious by Sonos's 2005  
26 system in view of the general knowledge of a POSITA, the Sonos Forums, Nourse, Millington, or  
27 any of the other secondary references identified by Dr. Schonfeld.

28 860. Further, I note that Dr. Schonfeld appears to have only performed his obviousness

1 analysis for Asserted Claim 1 of the '966 Patent on a limitation-by-limitation basis, and has not  
2 performed any analysis or offered any opinions as to whether Asserted Claim 1 of the '966 Patent  
3 as a whole would have been obviousness, which I understand to be improper.

4 861. Further yet, I note that Dr. Schonfeld has only offered obviousness opinions with  
5 respect to Sonos's 2005 system as combined with one other reference, and has not performed any  
6 analysis or offered any opinions as to whether a POSITA in 2005-06 would have been motivated  
7 to modify and combine Sonos's 2005 system with multiple different references.

8 862. Accordingly, for all of the reasons explained above, it is my opinion that Asserted  
9 Claim 1 of the '966 Patent is not rendered obvious by Sonos's 2005 system in view of the general  
10 knowledge of a POSITA, the Sonos Forums, Nourse, Millington, or any of the other secondary  
11 references identified by Dr. Schonfeld.

12 **2. Asserted Claim 2 is Not Rendered Obvious Based on Sonos's 2005**  
13 **System**

14 863. Asserted Claim 2 of the '966 Patent depends from Asserted Claim 1 of the '966  
15 Patent and requires the following:

16 **[2.0]** The computing device of claim 1, further comprising program instructions stored  
17 on the non-transitory computer-readable medium that, when executed by the one or more  
processors, cause the computing device to perform functions comprising:

18 **[2.1]** while the first zone player is configured to coordinate with at least the  
19 second zone player to play back media in synchrony with at least the second zone  
player, receiving a fourth request to invoke the second zone scene; and

20 **[2.2]** based on the fourth request, causing the first zone player to (a) cease to  
21 operate in accordance with the first predefined grouping of zone players such that  
22 the first zone player is no longer configured to coordinate with at least the second  
zone player to output media in synchrony with output of media by at least the  
23 second zone player and (b) begin to operate in accordance with the second  
predefined grouping of zone players such that the first zone player is configured to  
24 coordinate with at least the third zone player to output media in synchrony with  
output of media by at least the third zone player.

25 864. Thus, Asserted Claim 2 of the '966 Patent requires the claimed "computing device"  
26 to be programmed with functionality for invoking the claimed "second zone scene" at a time when  
27 the "first zone scene" is currently invoked and the first and second "zone players" are "configured  
28 to coordinate" with one another for synchronous playback in accordance with the "first zone

1 scene.”

2 865. In my opinion, Asserted Claim 2 of the '966 Patent is not rendered obvious based  
3 on Sonos's 2005 system in view of the general knowledge of a POSITA, the Sonos Forums,  
4 Nourse, Millington, or any of the other secondary references identified by Dr. Schonfeld.

5 866. Indeed, because Asserted Claim 2 of the '966 Patent depends from Asserted Claim  
6 1 of the '966 Patent, it is my opinion that Asserted Claim 2 of the '966 Patent is not rendered  
7 obvious by Sonos's 2005 system in view of the general knowledge of a POSITA, the Sonos  
8 Forums, Nourse, Millington, or any of the other secondary references identified by Dr. Schonfeld  
9 for at least the same reasons discussed above in connection with Asserted Claim 1 of the '966  
10 Patent.

11 867. Moreover, it is my opinion that the additional limitations of Asserted Claim 2 of  
12 the '966 Patent are neither disclosed by Sonos's 2005 system nor rendered obvious by Sonos's  
13 2005 system in view of the general knowledge of a POSITA, the Sonos Forums, Nourse,  
14 Millington, or any of the other secondary references identified by Dr. Schonfeld for similar reasons  
15 to those discussed above in connection with limitations 1.10-1.11, which are directed to  
16 functionality for invoking the claimed “first zone scene.” For example, as discussed above, a  
17 Sonos “zone group” is not a “zone scene,” and the controllers in Sonos's 2005 system did not have  
18 any functionality capability for receiving a “request to invoke” a “zone scene” or causing  
19 ZonePlayers to operate in accordance with a “zone scene” – let alone the functional capability for  
20 performing these operations with respect to two different, overlapping “zone scenes” – nor would  
21 it have been obvious to add this functionality to Sonos's 2005 system. And for similar reasons,  
22 the controllers in Sonos's 2005 system did not have any functionality capability for receiving a  
23 “request to invoke” a “second zone scene” or causing ZonePlayers to operate in accordance with  
24 a “second zone scene” at a time when a “first zone scene” having a common member is currently  
25 invoked, nor would it have been obvious to add this functionality to Sonos's 2005 system.

26 868. Despite these clear deficiencies, Dr. Schonfeld nevertheless opines that Asserted  
27 Claim 2 of the '966 Patent rendered obvious by Sonos's 2005 system. *See* Schonfeld Op. Report  
28 at ¶ 979. However, I find Dr. Schonfeld's opinion regarding Sonos's 2005 system and Asserted

Claim 2 of the '966 Patent to be flawed for several reasons.

869. As an initial matter, the entirety of Dr. Schonfeld's discussion regarding Sonos's 2005 system and Asserted Claim 2 of the '966 Patent is shown in the screenshot below from Dr. Schonfeld's Opening Report:

**3. Claim 2 Is Obvious Based On Prior Art Sonos System.**

- (i) *Limitation 2.1 The computing device of claim 1, further comprising program instructions stored on the non-transitory computer-readable medium that, when executed by the one or more processors, cause the computing device to perform functions comprising:*
- (ii) *Limitation 2.2 while the first zone player is configured to coordinate with at least the second zone player to play back media in synchrony with at least the second zone player, receiving a fourth request to invoke the second zone scene; and*
- (iii) *Limitation 2.3 based on the fourth request, causing the first zone player to (a) cease to operate in accordance with the first predefined grouping of zone players such that the first zone player is no longer configured to coordinate with at least the second zone player to output media in synchrony with output of media by at least the second zone player and (b) begin to operate in accordance with the second predefined grouping of zone players such that the first zone player is configured to coordinate with at least the third zone player to output media in synchrony with output of media by at least the third zone player.*

979. *See* '966 claim 1 *supra*. As discussed above, the Sonos system and the identified obviousness combinations disclosed the system in claim 1. Those disclosures included the ability to receive a third request to "invoke" the first zone scene. For the same reasons, that system also discloses the ability to "invoke" a different (second) zone scene. Even if the Sonos system did not disclose or render obvious this requirement, the mere addition of one additional transition in a system that already permits this same transition for different "zone scenes," as described *supra*, would have been obvious, as it is merely repeating the same steps using the same functionalities with a different "zone scene."

870. This shows that Dr. Schonfeld is primarily relying on his discussion of Asserted



1 Claim 1 of his '966 Patent, but as explained above, Dr. Schonfeld has not set forth any analysis  
2 for Asserted Claim 1 of his '966 Patent; instead, Dr. Schonfeld relies on his prior discussion of  
3 Sonos's 2005 system in the context of certain claim limitations of the '885 Patent. However, the  
4 Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim  
5 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a  
6 "zone player"), the Asserted Claims of the '966 Patent use different claim language than Asserted  
7 Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how  
8 his prior discussion of Sonos's 2005 system in the context of the claim limitations of Asserted  
9 Claim 1 of the '885 Patent applies to the Asserted Claims of the '966 Patent. For these reasons, I  
10 disagree that the Dr. Schonfeld's discussion of Asserted Claim 2 of the '966 Patent amounts to a  
11 detailed and complete statement of all opinions to be expressed and the basis and reasons therefor,  
12 which I understand to be the governing standard for expert reports, and that barebones discussion  
13 has prejudiced my ability to fully discern, assess, and respond to his opinions regarding Asserted  
14 Claim 2 of the '966 Patent.<sup>31</sup>

15 871. With that said, as I have discussed above in Section XV.A.1 as well as in my '885  
16 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's analysis of Sonos's  
17 2005 system in the context of Asserted Claim 1 of the '885 Patent suffers from a number of flaws,  
18 many of which are applicable to Asserted Claim 2 of the '966 Patent as well – including that his  
19 analysis is premised on both an incorrect interpretation of what is required to qualify as a "zone  
20 scene," an incorrect interpretation of what it means to "invoke" a "zone scene," and an inaccurate  
21 and misleading characterization of Sonos's 2005 system functionality and the evidence related  
22 thereto.

23 872. I also disagree with Dr. Schonfeld's statement that "the mere addition of one  
24 additional transition in a system that already permits this same transition for different 'zone  
25 scenes,' as described *supra*, would have been obvious, as it is merely repeating the same steps  
26 using the same functionalities with a different 'zone scene.'" Schonfeld Op. Report at ¶ 979. As

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27 <sup>31</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

1 explained above, Sonos's 2005 system did not "already permit[]" this same transition for different  
2 'zone scenes'" because Sonos's 2005 system had no "zone scene" functionality at all, and Dr.  
3 Schonfeld's characterization of Asserted Claim 2 as "merely repeating the same steps using the  
4 same functionalities with a different 'zone scene'" is also not accurate – Asserted Claim 1 requires  
5 the "computing device" to carry out the functionality of limitations 1.10-1.11 at a time when the  
6 "first zone scene" and the "second zone scene" are both uninvoked, whereas Asserted Claim 2  
7 requires the "computing device" to carry out the functionality of limitations 2.1-2.2 at a time when  
8 the "first zone scene" is invoked and the group members of the "first zone scene" are "configured  
9 to coordinate" with one another for synchronous playback.

10 873. Thus, nothing in Dr. Schonfeld's Opening Report alters my opinion that the Sonos  
11 controllers in Sonos's 2005 system did not have the functional capability required by Asserted  
12 Claim 2 of the '966 Patent, nor would it have been obvious to add this functionality to Sonos's  
13 2005 system.

14 **3. Asserted Claim 4 is Not Rendered Obvious Based on Sonos's 2005**  
15 **System**

16 874. Asserted Claim 4 of the '966 Patent depends from claim 3 of the '966 Patent, which  
17 in turn depends from Asserted Claim 1 of the '966 Patent. Claims 3 and 4 of the '966 Patent  
18 require as follows:

19 [3.0] The computing device of claim 1, [3.1] wherein causing storage of the first  
20 zone scene comprises causing storage of the first zone scene at a location other than  
21 the computing device, and [3.2] wherein causing storage of the second zone scene  
22 comprises causing storage of the second zone scene at the location other than the  
23 computing device.

24 [4.0] The computing device of claim 3, [4.1] wherein the location other than the  
25 computing device comprises a zone player of the first predefined grouping of zone  
26 players.

27 875. Thus, Asserted Claim 4 of the '966 Patent requires the claimed "computing device"  
28 to cause the claimed "zone scenes" to be stored at a "zone player" within the "predefined grouping"  
of the "first zone scene," such as the "first zone player" that is included in both the first and second  
"zone scenes."



1           876. In my opinion, Asserted Claim 4 of the '966 Patent is not rendered obvious based  
2 on Sonos's 2005 system in view of the general knowledge of a POSITA, the Sonos Forums,  
3 Nourse, Millington, or any of the other secondary references identified by Dr. Schonfeld.

4           877. Indeed, because Asserted Claim 4 of the '966 Patent depends from Asserted Claim  
5 1 of the '966 Patent (through claim 3), it is my opinion that Asserted Claim 4 of the '966 Patent is  
6 not rendered obvious by Sonos's 2005 system in view of the general knowledge of a POSITA, the  
7 Sonos Forums, Nourse, Millington, or any of the other secondary references identified by Dr.  
8 Schonfeld for at least the same reasons discussed above in connection with Asserted Claim 1 of  
9 the '966 Patent.

10           878. Moreover, it is my opinion that the additional limitations of Asserted Claim 4 of  
11 the '966 Patent are neither disclosed by Sonos's 2005 system nor rendered obvious by Sonos's  
12 2005 system in view of the general knowledge of a POSITA, the Sonos Forums, Nourse,  
13 Millington, or any of the other secondary references identified by Dr. Schonfeld for similar reasons  
14 to those discussed above in connection with limitations 1.6 and 1.8, which require the claimed  
15 "computing device" to have the functional capability to cause storage of the "first zone scene" and  
16 the "second zone scene." For example, as discussed above, a Sonos "zone group" is not a "zone  
17 scene," and the controllers in Sonos's 2005 system did not have any functionality capability for  
18 causing storage of a "zone scene" – let alone the functional capability for causing storage of two  
19 different, overlapping "zone scenes" – nor would it have been obvious to add this functionality to  
20 Sonos's 2005 system. And for similar reasons, the controllers in Sonos's 2005 system did not  
21 have any functionality capability for causing a "zone scene" to be stored at a ZonePlayer, nor  
22 would it have been obvious to add this functionality to Sonos's 2005 system.

23           879. Despite these clear deficiencies, Dr. Schonfeld nevertheless opines that intervening  
24 claim 3 and Asserted Claim 4 of the '966 Patent are both rendered obvious by Sonos's 2005  
25 system. *See* Schonfeld Op. Report at ¶¶ 980-982. However, I find Dr. Schonfeld's opinion  
26 regarding Sonos's 2005 system and claims 3-4 of the '966 Patent to be flawed for several reasons.

27           880. As an initial matter, the entirety of Dr. Schonfeld's discussion regarding Sonos's  
28 2005 system and claims 3-4 of the '966 Patent is shown in the screenshots below from Dr.

Schonfeld's Opening Report:

**4. Claim 3 is Obvious Based On Prior Art Sonos System.**

- (i) *3. The computing device of claim 1, wherein causing storage of the first zone scene comprises causing storage of the first zone scene at a location other than the computing device, and wherein causing storage of the second zone scene comprises causing storage of the second zone scene at the location other than the computing device.*

980. See '966 claim 1 *supra*. As described therein, the claimed "zone scene" is transmitted to and stored at the zone player, which is "a location other than the computing device."

981. Furthermore, the decision of where to store the zone scene, which consists of a finite list of options, is obvious. The zone scene may be stored at the zone players, at the computing device, or in on a server. Because the prior art system is networked, there is very little if any effect of the location of storage on the efficacy and effectiveness of the prior art solution.

**5. Claim 4 Is Obvious Based On Prior Art Sonos System.**

- (i) *4. The computing device of claim 3, wherein the location other than the computing device comprises a zone player of the first predefined grouping of zone players.*

982. See '966 claim 3 *supra*.

881. This shows that Dr. Schonfeld is primarily relying on his discussion of Asserted Claim 1 of his '966 Patent, but as explained above, Dr. Schonfeld has not set forth any analysis for Asserted Claim 1 of his '966 Patent; instead, Dr. Schonfeld relies on his prior discussion of Sonos's 2005 system in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a "zone player"), the Asserted Claims of the '966 Patent use different claim language than Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion of Sonos's 2005 system in the context of the claim limitations of Asserted

1 Claim 1 of the '885 Patent applies to the Asserted Claims of the '966 Patent. For these reasons, I  
2 disagree that the Dr. Schonfeld's discussion of Asserted Claim 4 of the '966 Patent amounts to a  
3 detailed and complete statement of all opinions to be expressed and the basis and reasons therefor,  
4 which I understand to be the governing standard for expert reports, and that barebones discussion  
5 has prejudiced my ability to fully discern, assess, and respond to his opinions regarding Asserted  
6 Claim 4 of the '966 Patent.<sup>32</sup>

7 882. With that said, as I have discussed above in Section XV.A.1 as well as in my '885  
8 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's analysis of Sonos's  
9 2005 system in the context of Asserted Claim 1 of the '885 Patent suffers from a number of flaws,  
10 many of which are applicable to Asserted Claim 4 of the '966 Patent as well – including that his  
11 analysis is premised on both an incorrect interpretation of what is required to qualify as a “zone  
12 scene” and an inaccurate and misleading characterization of Sonos's 2005 system functionality  
13 and the evidence related thereto.

14 883. I also disagree with Dr. Schonfeld's unsupported and conclusory statement at  
15 paragraph 981 that “the decision of where to store the zone scene, which consists of a finite list of  
16 options, is obvious.” Schonfeld Op. Report at ¶ 981. As explained above, it would not have been  
17 obvious to a POSITA in 2005-06 to incorporate any form of “zone scene” functionality into  
18 Sonos's 2005 system, let alone would have been obvious to incorporate “zone scene” functionality  
19 in which the “zone scenes” were stored at ZonePlayers as opposed to some other system  
20 component.

21 884. Likewise, I disagree with Dr. Schonfeld's unsupported and conclusory statement at  
22 paragraph 981 that “[b]ecause the prior art system is networked, there is very little if any effect of  
23 the location of storage on the efficacy and effectiveness of the prior art solution.” Schonfeld Op.  
24 Report at ¶ 981. In my opinion, storing “zone scenes” on “zone players” rather than on the  
25 “computing device” as required by Asserted Claim 4 does indeed improve the “efficacy and  
26 effectiveness” of a networked media playback system, because it ensures that the “zone scenes”

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27 <sup>32</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

1 will be available for selection by users on different controller devices as opposed to being available  
2 only on the controller device that was used to create the “zone scenes.”

3 885. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that the Sonos  
4 controllers in Sonos’s 2005 system did not have the functional capability required by Asserted  
5 Claim 4 of the ’966 Patent, nor would it have been obvious to add this functionality to Sonos’s  
6 2005 system.

7 **4. Asserted Claim 6 is Not Rendered Obvious Based on Sonos’s 2005**  
8 **System**

9 886. Asserted Claim 6 of the ’966 Patent depends from Asserted Claim 1 of the ’966  
10 Patent and requires the following:

11 **[6.0]** The computing device of claim 1, **[6.1]** wherein the first predefined grouping of  
12 zone players does not include the third zone player, and **[6.2]** wherein the second  
predefined grouping of zone players does not include the second zone player.

13 887. Thus, Asserted Claim 6 of the ’966 Patent requires the claimed “computing device”  
14 to be programmed with functionality for creating two overlapping “zone scenes” where each “zone  
15 scene” includes at least one “zone player” that is not included in the other “zone scene.”

16 888. In my opinion, Asserted Claim 6 of the ’966 Patent is not rendered obvious based  
17 on Sonos’s 2005 system in view of the general knowledge of a POSITA, the Sonos Forums,  
18 Nourse, Millington, or any of the other secondary references identified by Dr. Schonfeld.

19 889. Indeed, because Asserted Claim 6 of the ’966 Patent depends from Asserted Claim  
20 1 of the ’966 Patent, it is my opinion that Asserted Claim 6 of the ’966 Patent is not rendered  
21 obvious by Sonos’s 2005 system in view of the general knowledge of a POSITA, the Sonos  
22 Forums, Nourse, Millington, or any of the other secondary references identified by Dr. Schonfeld  
23 for at least the same reasons discussed above in connection with Asserted Claim 1 of the ’966  
24 Patent.

25 890. Moreover, it is my opinion that the additional limitations of Asserted Claim 6 of  
26 the ’966 Patent are neither disclosed by Sonos’s 2005 system nor rendered obvious by Sonos’s  
27 2005 system in view of the general knowledge of a POSITA, the Sonos Forums, Nourse,  
28 Millington, or any of the other secondary references identified by Dr. Schonfeld for similar reasons

1 to those discussed above in connection with Asserted Claim 1 of the '966 Patent. For example, as  
2 discussed above, a Sonos "zone group" is not a "zone scene," and the controllers in Sonos's 2005  
3 system did not have any functionality capability for creating a "zone scene" – let alone the  
4 functional capability for creating two different, overlapping "zone scenes" – nor would it have  
5 been obvious to add this functionality to Sonos's 2005 system. And for similar reasons, the  
6 controllers in Sonos's 2005 system did not have any functionality capability for creating two  
7 overlapping "zone scenes" where each "zone scene" includes at least one "zone player" that is not  
8 included in the other "zone scene," nor would it have been obvious to add this functionality to  
9 Sonos's 2005 system.

10 891. Despite these clear deficiencies, Dr. Schonfeld nevertheless opines that Asserted  
11 Claim 6 of the '966 Patent rendered obvious by Sonos's 2005 system. *See* Schonfeld Op. Report  
12 at ¶ 983. However, I find Dr. Schonfeld's opinion regarding Sonos's 2005 system and Asserted  
13 Claim 6 of the '966 Patent to be flawed for several reasons.

14 892. As an initial matter, the entirety of Dr. Schonfeld's discussion regarding Sonos's  
15 2005 system and Asserted Claim 6 of the '966 Patent is shown in the screenshot below from Dr.  
16 Schonfeld's Opening Report:

17  
18 **6. Claim 6 Is Obvious Based On Prior Art Sonos System.**

- 19 (i) *6. The computing device of claim 1, wherein the first predefined*  
20 *grouping of zone players does not include the third zone player, and*  
21 *wherein the second predefined grouping of zone players does not*  
*include the second zone player.*

22 983. *See* '966 claim 1 *supra*. As discussed *supra*, claim 1 is disclosed or rendered  
23 obvious at least through the disclosure of non-overlapping zone scenes in the prior art.

24 893. This shows that Dr. Schonfeld is relying exclusively on his discussion of Asserted  
25 Claim 1 of his '966 Patent, but as explained above, Dr. Schonfeld has not set forth any analysis  
26 for Asserted Claim 1 of his '966 Patent; instead, Dr. Schonfeld relies on his prior discussion of  
27 Sonos's 2005 system in the context of certain claim limitations of the '885 Patent. However, the  
28 Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim

1 1 of the '885 Patent (a “computing device” configured to “serv[e] as a controller” as opposed to a  
2 “zone player”), the Asserted Claims of the '966 Patent use different claim language than Asserted  
3 Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how  
4 his prior discussion of Sonos’s 2005 system in the context of the claim limitations of Asserted  
5 Claim 1 of the '885 Patent applies to the Asserted Claims of the '966 Patent. For these reasons, I  
6 disagree that the Dr. Schonfeld’s discussion of Asserted Claim 6 of the '966 Patent amounts to a  
7 detailed and complete statement of all opinions to be expressed and the basis and reasons therefor,  
8 which I understand to be the governing standard for expert reports, and that barebones discussion  
9 has prejudiced my ability to fully discern, assess, and respond to his opinions regarding Asserted  
10 Claim 6 of the '966 Patent.<sup>33</sup>

11 894. With that said, as I have discussed above in Section XV.A.1 as well as in my '885  
12 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld’s analysis of Sonos’s  
13 2005 system in the context of Asserted Claim 1 of the '885 Patent suffers from a number of flaws,  
14 many of which are applicable to Asserted Claim 6 of the '966 Patent as well – including that his  
15 analysis is premised on both an incorrect interpretation of what is required to qualify as a “zone  
16 scene” and an inaccurate and misleading characterization of Sonos’s 2005 system functionality  
17 and the evidence related thereto.

18 895. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that the Sonos  
19 controllers in Sonos’s 2005 system did not have the functional capability required by Asserted  
20 Claim 6 of the '966 Patent, nor would it have been obvious to add this functionality to Sonos’s  
21 2005 system.

22 **5. Asserted Claim 8 is Not Rendered Obvious Based on Sonos’s 2005**  
23 **System**

24 896. Asserted Claim 8 of the '966 Patent depends from Asserted Claim 1 of the '966  
25 Patent and requires the following:

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27  
28 <sup>33</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
in his Opening Report, I expressly reserve my right to respond.



1 [8.0] The computing device of claim 1, [8.1] wherein receiving the first request  
2 comprises receiving a first set of one or more inputs via a user interface of the computing  
3 device, [8.2] wherein receiving the second request comprises receiving a second set of one  
4 or more inputs via the user interface, and [8.3] wherein receiving the third request  
5 comprises receiving a third set of one or more inputs via the user interface.

6 897. Thus, Asserted Claim 8 of the '966 Patent requires the claimed "computing device"  
7 to be programmed with the functional capability to receive "requests" for creating and invoking  
8 "zone scenes" that take the form of "one or more inputs" received "via a user interface."

9 898. In my opinion, Asserted Claim 8 of the '966 Patent is not rendered obvious based  
10 on Sonos's 2005 system in view of the general knowledge of a POSITA, the Sonos Forums,  
11 Nourse, Millington, or any of the other secondary references identified by Dr. Schonfeld.

12 899. Indeed, because Asserted Claim 8 of the '966 Patent depends from Asserted Claim  
13 1 of the '966 Patent, it is my opinion that Asserted Claim 8 of the '966 Patent is not rendered  
14 obvious by Sonos's 2005 system in view of the general knowledge of a POSITA, the Sonos  
15 Forums, Nourse, Millington, or any of the other secondary references identified by Dr. Schonfeld  
16 for at least the same reasons discussed above in connection with Asserted Claim 1 of the '966  
17 Patent.

18 900. Moreover, it is my opinion that the additional limitations of Asserted Claim 8 of  
19 the '966 Patent are neither disclosed by Sonos's 2005 system nor rendered obvious by Sonos's  
20 2005 system in view of the general knowledge of a POSITA, the Sonos Forums, Nourse,  
21 Millington, or any of the other secondary references identified by Dr. Schonfeld for similar reasons  
22 to those discussed above in connection with Asserted Claim 1 of the '966 Patent. For example, as  
23 discussed above, a Sonos "zone group" is not a "zone scene," and the controllers in Sonos's 2005  
24 system did not have any functionality capability for receiving requests to create or invoke a "zone  
25 scene" – let alone the functional capability for receiving requests to create two different,  
26 overlapping "zone scenes" and then receiving a request to invoke one of the "zone scenes" – nor  
27 would it have been obvious to add this functionality to Sonos's 2005 system. And for similar  
28 reasons, the controllers in Sonos's 2005 system did not have any functionality capability for  
receiving requests to create or invoke "zone scenes" that take the form of "one or more inputs"  
received "via a user interface," nor would it have been obvious to add this functionality to Sonos's



2005 system.

901. Despite these clear deficiencies, Dr. Schonfeld nevertheless opines that Asserted Claim 8 of the '966 Patent rendered obvious by Sonos's 2005 system. *See* Schonfeld Op. Report at ¶ 984. However, I find Dr. Schonfeld's opinion regarding Sonos's 2005 system and Asserted Claim 8 of the '966 Patent to be flawed for several reasons.

902. As an initial matter, the entirety of Dr. Schonfeld's discussion regarding Sonos's 2005 system and Asserted Claim 8 of the '966 Patent is shown in the screenshot below from Dr. Schonfeld's Opening Report:

**7. Claim 8 Is Obvious Based On Prior Art Sonos System.**

(i) 8. The computing device of claim 1, wherein receiving the first request comprises receiving a first set of one or more inputs via a user interface of the computing device, wherein receiving the second request comprises receiving a second set of one or more inputs via the user interface, and wherein receiving the third request comprises receiving a third set of one or more inputs via the user interface.

984. *See* '966 claim 1 *supra*.

903. This shows that Dr. Schonfeld is relying exclusively on his discussion of Asserted Claim 1 of his '966 Patent, but as explained above, Dr. Schonfeld has not set forth any analysis for Asserted Claim 1 of his '966 Patent; instead, Dr. Schonfeld relies on his prior discussion of Sonos's 2005 system in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a "zone player"), the Asserted Claims of the '966 Patent use different claim language than Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion of Sonos's 2005 system in the context of the claim limitations of Asserted Claim 1 of the '885 Patent applies to the Asserted Claims of the '966 Patent. For these reasons, I disagree that the Dr. Schonfeld's discussion of Asserted Claim 8 of the '966 Patent amounts to a detailed and complete statement of all opinions to be expressed and the basis and reasons therefor,

1 which I understand to be the governing standard for expert reports, and that barebones discussion  
2 has prejudiced my ability to fully discern, assess, and respond to his opinions regarding Asserted  
3 Claim 6 of the '966 Patent.<sup>34</sup>

4 904. With that said, as I have discussed above in Sections XV.A.1 and IX as well as in  
5 my '885 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's analysis  
6 of Sonos's 2005 system in the context of Asserted Claim 1 of the '885 Patent suffers from a number  
7 of flaws, many of which are applicable to Asserted Claim 8 of the '966 Patent as well – including  
8 that his analysis is premised on both an incorrect interpretation of what is required to qualify as a  
9 “zone scene” and an inaccurate and misleading characterization of Sonos's 2005 system  
10 functionality and the evidence related thereto.

11 905. Thus, nothing in Dr. Schonfeld's Opening Report alters my opinion that the Sonos  
12 controllers in Sonos's 2005 system did not have the functional capability required by Asserted  
13 Claim 8 of the '966 Patent, nor would it have been obvious to add this functionality to Sonos's  
14 2005 system.

15 **6. Asserted Claim 9 is Not Rendered Obvious Based on Sonos's 2005**  
16 **System**

17 906. For the same reasons already discussed above in connection with Asserted Claim 1  
18 of the '966 Patent, in my opinion, Asserted Claim 9 of the '966 Patent is not rendered obvious by  
19 Sonos's 2005 system in view of the general knowledge of a POSITA, the Sonos Forums, Nourse,  
20 Millington, or any of the other secondary references identified by Dr. Schonfeld.

21 **7. Asserted Claim 10 is Not Rendered Obvious Based on Sonos's 2005**  
22 **System**

23 907. For the same reasons already discussed above in connection with Asserted Claim 2  
24 of the '966 Patent, in my opinion, Asserted Claim 10 of the '966 Patent is not rendered obvious  
25 by Sonos's 2005 system in view of the general knowledge of a POSITA, the Sonos Forums,  
26 Nourse, Millington, or any of the other secondary references identified by Dr. Schonfeld.

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27 <sup>34</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

1                   8.     **Asserted Claim 12 is Not Rendered Obvious Based on Sonos's 2005**  
2                             **System**

3             908.    For the same reasons already discussed above in connection with Asserted Claim 4  
4 of the '966 Patent, in my opinion, Asserted Claim 12 of the '966 Patent is not rendered obvious  
5 by Sonos's 2005 system in view of the general knowledge of a POSITA, the Sonos Forums,  
6 Nourse, Millington, or any of the other secondary references identified by Dr. Schonfeld.

7                   9.     **Asserted Claim 14 is Not Rendered Obvious Based on Sonos's 2005**  
8                             **System**

9             909.    For the same reasons already discussed above in connection with Asserted Claim 6  
10 of the '966 Patent, in my opinion, Asserted Claim 14 of the '966 Patent is not rendered obvious  
11 by Sonos's 2005 system in view of the general knowledge of a POSITA, the Sonos Forums,  
12 Nourse, Millington, or any of the other secondary references identified by Dr. Schonfeld.

13                  10.    **Asserted Claim 16 is Not Rendered Obvious Based on Sonos's 2005**  
14                             **System**

15             910.    For the same reasons already discussed above in connection with Asserted Claim 8  
16 of the '966 Patent, in my opinion, Asserted Claim 16 of the '966 Patent is not rendered obvious  
17 by Sonos's 2005 system in view of the general knowledge of a POSITA, the Sonos Forums,  
18 Nourse, Millington, or any of the other secondary references identified by Dr. Schonfeld.

19            B.     **Squeezebox**

20             911.    In his Opening Report, Dr. Schonfeld opines that the Asserted Claims of the '966  
21 Patent are rendered obvious by a reference he calls "Squeezebox" in view of "[g]eneral  
22 [k]nowledge of a POSITA, the Sonos System, the Sonos Forms, the Bose Lifestyle, or Millington."  
23 *See* Schonfeld Op. Report at ¶¶ 1001-1033. I disagree.

24             912.    As an initial matter, Dr. Schonfeld fails to set forth any basis or reasoning for his  
25 opinion that the Asserted Claims of the '966 Patent are rendered obvious based on Squeezebox in  
26 view of "[g]eneral [k]nowledge of a POSITA, the Sonos System, the Sonos Forms, the Bose  
27 Lifestyle, or Millington." *Id.* Instead, with respect to the Asserted Claims of the '966 Patent, Dr.  
28 Schonfeld relies exclusively on his prior discussion of Squeezebox in the context of Asserted

1 Claim 1 of the '885 Patent by merely citing to that portion of his Opening Report. *Id.* In so doing,  
2 Dr. Schonfeld has failed to even acknowledge the fact that the Asserted Claims of the '966 Patent  
3 use different claim language than Asserted Claim 1 of the '885 Patent, let alone provide any  
4 explanation as to how his prior discussion of Squeezebox in the context of Asserted Claim 1 of the  
5 '885 Patent applies to the Asserted Claims of the '966 Patent. For these reasons, it is my opinion  
6 that Dr. Schonfeld has failed to provide any basis or reasoning for his opinion that the Asserted  
7 Claims of the '966 patent are rendered obvious based on Squeezebox in view of “[g]eneral  
8 [k]nowledge of a POSITA, the Sonos System, the Sonos Forms, the Bose Lifestyle, or Millington.”  
9 *Id.*

10 913. Given Dr. Schoenfeld’s reliance on his prior discussion of Squeezebox in the  
11 context of Asserted Claim 1 of the '885 Patent, where appropriate, I have referred back to my  
12 rebuttal analysis and opinions regarding Asserted Claim 1 of the '885 Patent from my '885  
13 Rebuttal Report. However, unlike Dr. Schonfeld, I have also provided analysis in the context of  
14 the Asserted Claims of the '966 Patent, as set forth below. To the extent Dr. Schonfeld is permitted  
15 to later provide analysis and/or new opinions regarding the Asserted Claims of the '966 Patent, I  
16 reserve my right to address such analysis and/or opinions in a supplemental report and/or at trial.

17 914. Based on my analysis of the Asserted Claims of the '966 Patent and the cited  
18 references, I disagree with Dr. Schonfeld’s unsupported opinion that the Asserted Claims of the  
19 '966 Patent are rendered obvious based on Squeezebox in view of “[g]eneral [k]nowledge of a  
20 POSITA, the Sonos System, the Sonos Forms, the Bose Lifestyle, or Millington.”

21 915. To begin, Dr. Schonfeld has relied on various evidence for his “Squeezebox”  
22 reference that does not qualify as prior art, as I already explained above.

23 916. Further, as explained below, it is my opinion that Squeezebox failed to disclose at  
24 least the following limitations of the Asserted Claims of the '966 Patent:

25 *Claims 1 and 9*

- 26 • A “zone scene” comprising a “predefined grouping of zone players . . . that are to  
27 be configured for synchronous playback of media when the . . . zone scene is  
28 invoked”;

- 1 • [1.4] / [1.5] and [9.1] / [9.2] “while serving as a controller for a networked media  
2 playback system comprising a first zone player and at least two other zone players,  
3 wherein the first zone player is operating in a standalone mode in which the first  
4 zone player is configured to play back media individually[,]” “receiving a first  
5 request to create a first zone scene comprising a first predefined grouping of zone  
6 players including at least the first zone player and a second zone player that are to  
7 be configured for synchronous playback of media when the first zone scene is  
8 invoked”;
- 9 • [1.4] / [1.6] and [9.1] / [9.3] “while serving as a controller for a networked media  
10 playback system comprising a first zone player and at least two other zone players,  
11 wherein the first zone player is operating in a standalone mode in which the first  
12 zone player is configured to play back media individually[,]” “based on the first  
13 request, i) causing creation of the first zone scene, ii) causing an indication of the  
14 first zone scene to be transmitted to the first zone player, and iii) causing storage of  
15 the first zone scene”;
- 16 • [1.4] / [1.7] and [9.1] / [9.4] “while serving as a controller for a networked media  
17 playback system comprising a first zone player and at least two other zone players,  
18 wherein the first zone player is operating in a standalone mode in which the first  
19 zone player is configured to play back media individually[,]” “receiving a second  
20 request to create a second zone scene comprising a second predefined grouping of  
21 zone players including at least the first zone player and a third zone player that are  
22 to be configured for synchronous playback of media when the first zone scene is  
23 invoked”;
- 24 • [1.4] / [1.8] and [9.1] / [9.5] “while serving as a controller for a networked media  
25 playback system comprising a first zone player and at least two other zone players,  
26 wherein the first zone player is operating in a standalone mode in which the first  
27 zone player is configured to play back media individually[,]” “based on the second  
28 request, i) causing creation of the second zone scene, ii) causing an indication of  
the second zone scene to be transmitted to the first zone player, and iii) causing  
storage of the second zone scene”;
- [1.4] / [1.9] and [9.1] / [9.6] “while serving as a controller for a networked media  
playback system comprising a first zone player and at least two other zone players,  
wherein the first zone player is operating in a standalone mode in which the first  
zone player is configured to play back media individually[,]” “displaying a  
representation of the first zone scene and a representation of the second zone  
scene”;
- [1.4] / [1.10] and [9.1] / [9.7] “while serving as a controller for a networked media  
playback system comprising a first zone player and at least two other zone players,  
wherein the first zone player is operating in a standalone mode in which the first  
zone player is configured to play back media individually[,]” and “while displaying  
the representation of the first zone scene and the representation of the second zone  
scene, receiving a third request to invoke the first zone scene”; and
- [1.11] and [9.8] “based on the third request, causing the first zone player to

transition from operating in the standalone mode to operating in accordance with the first predefined grouping of zone players such that the first zone player is configured to coordinate with at least the second zone player to output media in synchrony with output of media by at least the second zone player”.

*Claims 2 and 10 (depending from claims 1 and 9)*

- [2.0] “The computing device of claim 1, further comprising program instructions stored on the non-transitory computer-readable medium that, when executed by the one or more processors, cause the computing device to perform functions comprising”;
- [10.0] “The non-transitory computer-readable medium of claim 9, wherein the non-transitory computer-readable medium is also provisioned with program instructions stored on the non-transitory computer-readable medium that, when executed by the one or more processors, cause the computing device to perform functions comprising”;
- [2.1] and [10.1] “while the first zone player is configured to coordinate with at least the second zone player to play back media in synchrony with at least the second zone player, receiving a fourth request to invoke the second zone scene”; and
- [2.2] and [10.2] “while the first zone player is configured to coordinate with at least the second zone player to play back media in synchrony with at least the second zone player, receiving a fourth request to invoke the second zone scene”.

*Claims 3 and 11 (depending from claims 1 and 9)*

- [3.0] “The computing device of claim 1”;
- [11.0] “The non-transitory computer-readable medium of claim 9”;
- [3.1] and [11.1] “wherein causing storage of the first zone scene comprises causing storage of the first zone scene at a location other than the computing device”; and
- [3.2] and [11.2] “wherein causing storage of the second zone scene comprises causing storage of the second zone scene at the location other than the computing device”.

*Claims 4 and 12 (depending from claims 3 and 11)*

- [4.0] “The computing device of claim 3”;
- [12.0] “The non-transitory computer-readable medium of claim 11”;
- [4.1] and [12.1] “wherein the location other than the computing device comprises a zone player of the first predefined grouping of zone players”.

*Claims 6 and 14 (depending from claims 1 and 9)*



- [6.0] “The computing device of claim 1”;
- [14.0] “The non-transitory computer-readable medium of claim 9”;
- [6.1] and [14.1] “wherein the first predefined grouping of zone players does not include the third zone player”; and
- [6.2] and [14.2] “wherein the second predefined grouping of zone players does not include the second zone player”.

*Claims 8 and 16 (depending from claims 1 and 9)*

- [8.0] “The computing device of claim 1”;
- [16.0] “The non-transitory computer-readable medium of claim 9”;
- [8.1] and [16.1] “wherein receiving the first request comprises receiving a first set of one or more inputs via a user interface of the computing device”;
- [8.2] and [16.2] “wherein receiving the second request comprises receiving a second set of one or more inputs via the user interface”; and
- [8.3] and [16.3] “wherein receiving the third request comprises receiving a third set of one or more inputs via the user interface”.

917. Further yet, it is my opinion that these limitations that were missing from Dr. Schonfeld’s “Squeezebox” reference also would not have been obvious based on Squeezebox in view of “[g]eneral [k]nowledge of a POSITA, the Sonos System, the Sonos Forms, the Bose Lifestyle, or Millington.” This opinion is based in part on the fact that I have not seen any evidence showing an apparent reason why a POSITA in 2005-06 would have been motivated to modify Squeezebox and/or combine it with any of the references identified by Dr. Schonfeld in order to achieve the claimed inventions of the ’966 Patent. I have also seen other objective, real-world evidence demonstrating that a POSITA in 2005-06 would not have found the Asserted Claims of the ’966 Patent to have been obvious, which stands in stark contrast to Dr. Schonfeld’s failure to support his obviousness opinions with any objective evidence.

918. My opinions regarding the non-obviousness of the Asserted Claims of the ’966 Patent over Squeezebox in view of “[g]eneral [k]nowledge of a POSITA, the Sonos System, the Sonos Forms, the Bose Lifestyle, or Millington” are further supported by the fact that various of the secondary references identified by Dr. Schonfeld were considered by USPTO during



prosecution of the '966 Patent, which was then allowed to issue over these references. In particular:

- The Nourse patent as well as its prior publication were considered during prosecution of the '966 Patent (*see* '966 Patent at p. 4, 6);
- The Rajapakse patent as well as its prior publication were considered during prosecution of the '966 Patent (*see* '966 Patent at p. 5, 7);
- Several U.S. counterparts to the Millington Canadian patent relied upon by Dr. Schonfeld were considered during prosecution of the '966 Patent, including U.S. Pat. No. 8,234,395 (*see* '966 Patent at p. 5); and
- The Lindemann publication was considered during prosecution of the '966 Patent (*see* '966 Patent at p. 7).

919. As I explained in my '885 Rebuttal Report, the Squeezebox system as well as various of the secondary references identified by Dr. Schonfeld were also considered by U.S. Patent Office during prosecution of the '885 Patent, which was then allowed to issue over these references.

920. Because the USPTO considered these references during prosecution of the '966 Patent and then decided to grant the '966 Patent (including Asserted Claims 1, 2, 4, 6, 8, 9, 10, 12, 14, 16) over these references, I understand that Dr. Schonfeld has the added burden of overcoming the deference that is due to a qualified government agency, such as the USPTO, that is presumed to have properly done its job based on its expertise in interpreting references, its understanding of the level of ordinary skill in the art, and its duty to issue only valid patents. However, it is my opinion that Dr. Schonfeld failed to satisfy this added burden.<sup>35</sup>

921. In his Opening Report, Dr. Schonfeld states that “[s]imply because the USPTO cited certain references during prosecution does not mean that these references were considered – the USPTO did not rely on any of these references as the basis for its rejections.” Schonfeld Op.

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<sup>35</sup> I further note that various Squeezebox materials were considered during prosecution of the related '885 Patent, including “Squeezebox Network Music Player. Owner's Manual, Slim Devices, 2003,” “Squeezebox by Logitech. Owner's Guide, 2007,” “NewsRoom. Slim Devices Introduces Squeezebox, Nov. 18, 2003,” “Logitech Slimserver. Server for Logitech Squeezebox Players,” “Logitech/slimserver. Github,” and “Logitech/Slimserver. Github. Version 23 Release. May 19, 2002” (*see* '885 Patent at p. 23-24).

1 Report at ¶ 327. I disagree. While the Examiner did not rely on the above-identified references  
2 as a basis for his preliminary rejections, the references identified above were all considered by the  
3 Examiner as indicated by the Examiner's statement that "ALL REFERENCES CONSIDERED  
4 EXCEPT WHERE LINED THROUGH," followed by the Examiner's signature. Thus, it is my  
5 understanding that the Examiner did consider the references identified above and determined that  
6 the claimed inventions of the '966 Patent were novel and non-obvious over those references.

7 922. After suggesting that the USPTO did not consider the above-identified references,  
8 Dr. Schonfeld then states that "the USPTO did not have the benefit of the Court's claim  
9 construction for 'zone scene.'" Schonfeld Op. Report at ¶ 327. However, Dr. Schonfeld does not  
10 explain how this assertion is related to whether or not the USPTO considered the references or  
11 how "hav[ing] the benefit of the Court's claim construction for 'zone scene'" would have had any  
12 impact on the USPTO's decision to grant the '966 Patent. Regardless, for the reasons explained  
13 below, it is my opinion that the USPTO's decision to grant the '966 Patent over the above-  
14 identified references was correct, because those references fail to anticipate or render obvious any  
15 of the Asserted Claims of the 966 Patent.

16 923. In the sub-sections below, I have provided a summary of the bases for my opinions,  
17 as well as responses to Dr. Schonfeld's opinions.

18 **1. Asserted Claim 1 is Not Rendered Obvious Based on Squeezebox**

19 924. For the reasons discussed below, in my opinion, Asserted Claim 1 of the '966 Patent  
20 is not rendered obvious by Dr. Schonfeld's "Squeezebox" reference (herein sometimes referred to  
21 as "Squeezebox") in view of the general knowledge of a POSITA, the Sonos System, the Sonos  
22 Forms, the Bose Lifestyle, Millington, or any of the other secondary references identified by Dr.  
23 Schonfeld.

24 **i. Dr. Schonfeld Fails to Map his "Squeezebox" Reference to the**  
25 **Claimed Devices of Claim 1**

26 925. Asserted Claim 1 of the '966 Patent requires a physical "computing device" that is  
27 configured to "serv[e] as a controller for a networked media playback system" comprising at least  
28 three different physical "zone players."

1           926. In Dr. Schonfeld's Opening Report, he fails to set forth any analysis of Squeezebox  
2 the in connection with Asserted Claim 1 of the '966 Patent, and instead merely cites back to certain  
3 aspects of his analysis of Squeezebox in the context of Asserted Claim 1 of the '885 Patent.  
4 Schonfeld Op. Report at ¶¶ 1000-1033. Thus, Dr. Schonfeld fails to articulate what he considers  
5 to be the "computing device," the "zone players," and the "networked media playback system" of  
6 Asserted Claim 1 of the '966 Patent in his "Squeezebox" reference.

7           927. In Dr. Schonfeld's analysis of the "Squeezebox" reference in connection with  
8 Asserted Claim 1 of the '885 Patent, he mapped the "network device" of Asserted Claim 1 of the  
9 '885 Patent to a computer installed with SlimServer software and mapped the "zone players" of  
10 Asserted Claim 1 of the '885 Patent to Squeezebox or Softsqueeze players. *See* Schonfeld Op.  
11 Report at ¶¶ 468, 489-490, 521. Based on this mapping, I have assumed for purposes of my  
12 discussion below that Dr. Schonfeld is mapping (i) the "computing device" of Asserted Claim 1  
13 of the '966 Patent to a computer installed with SlimServer software, (ii) the "zone players" of the  
14 '966 Patent to physical Squeezebox players and software-based SoftSqueeze players, which I will  
15 collectively refer to as "Squeezebox players" for simplicity, and (iii) the "networked media  
16 playback system" of Asserted Claim 1 of the '966 Patent to a system comprising a computer  
17 installed with the SlimServer software and Squeezebox players, which I will refer as a  
18 "Squeezebox system." However, to the extent Dr. Schonfeld is permitted to later provide analysis  
19 and/or new opinions regarding the Asserted Claims of the '966 Patent, I reserve my right to address  
20 such analysis and/or opinions in a supplemental report and/or at trial.

21                   **ii. Squeezebox Did Not Have "Zone Scenes" Functionality**

22           928. Asserted Claim 1 of the '966 Patent requires a "computing device" that is  
23 programmed with certain functional capability for creating and invoking a "zone scene," which is  
24 a user-customized, pre-saved group of "zone players" that is able to exist in an inactive state while  
25 remaining available for selection by a user so that the group can be invoked later on demand for  
26 synchronous playback. And more specifically, Asserted Claim 1 of the '966 Patent requires a  
27 "computing device" that is programmed with functional capability for creating multiple "zone  
28 scenes" having an overlapping "zone player" and then later invoking one of the "zone scenes."

1           929. As explained above in Section XV.A.1.i, there are several key distinctions between a  
2 “zone scene” and the types of temporary, ad-hoc groups that could be created by a user in prior art  
3 systems such as the Squeezebox system.

4           930. Based on the evidence I have reviewed regarding Dr. Schonfeld’s “Squeezebox”  
5 reference, it is my opinion that a computer installed with the SlimServer software in a Squeezebox  
6 system did not have *any* functional capability for creating or invoking a “zone scene” – let alone  
7 the required functional capability to cause the creation of two different, overlapping “zone scenes”  
8 that are both available for selection by a user and then later cause a selected one of the two different  
9 “zone scenes” to be invoked, as required by Asserted Claim 1 of the ’966 Patent.

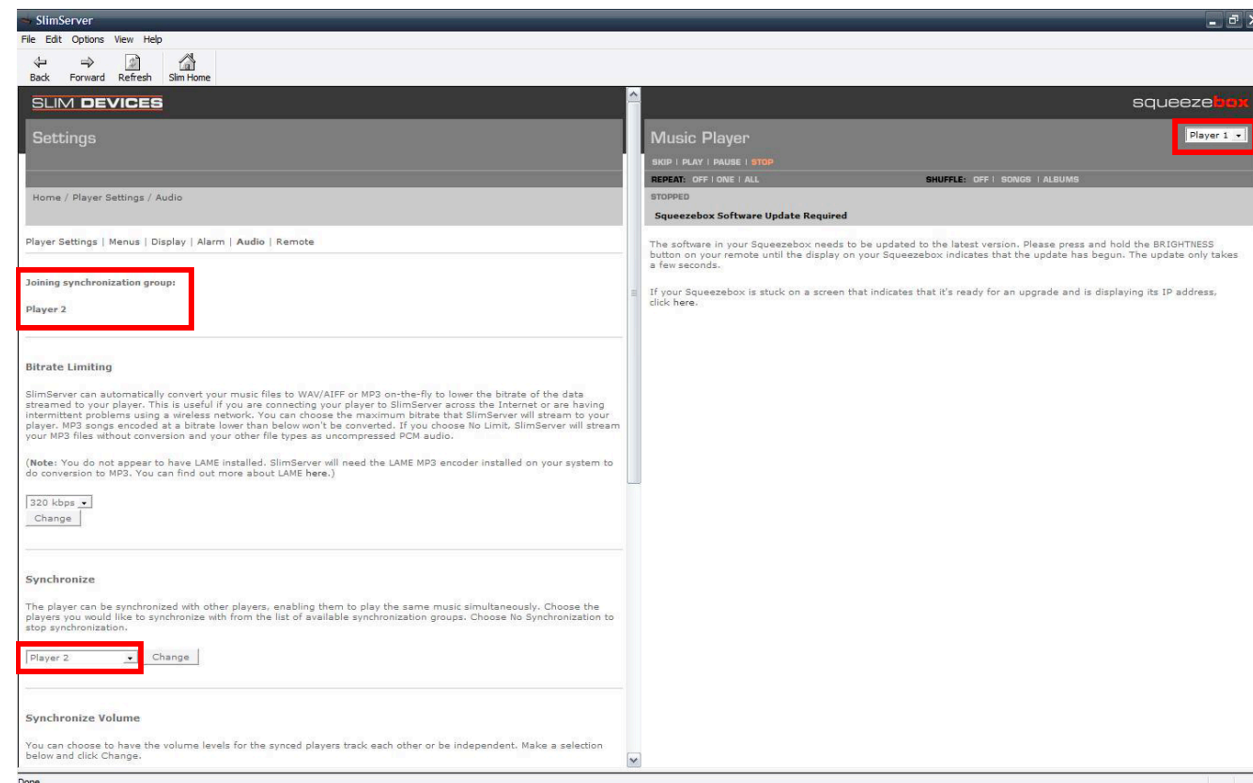
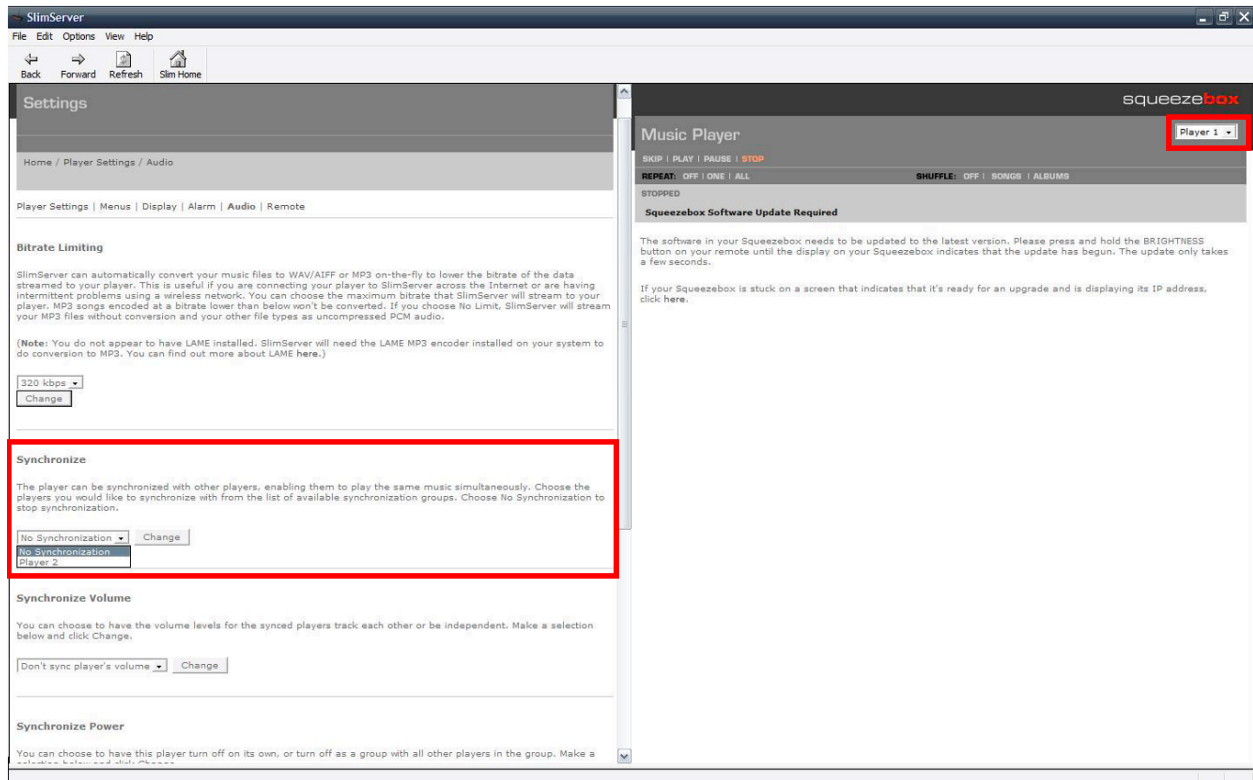
10          931. The Squeezebox evidence I have reviewed indicates that at some point in time it  
11 may have been possible for a user of a Squeezebox system to create something called a “sync  
12 group,”<sup>36</sup> which was a configuration in which the SlimServer software would attempt to cause  
13 multiple Squeezebox players to play the same music simultaneously. *See, e.g.,*  
14 Slim/Buttons/Synchronize.pm; Slim/Player/Sync.pm; Slim/Utils/Prefs.pm;  
15 Slim/Player/Source.pm; Slim/Server/Squeezebox.pm; Slim/Player/Client.pm; GOOG-SONOS-  
16 NDCA-00108095-588 at GOOG-SONOS-NDCA-00108162, GOOG-SONOS-NDCA-00108169,  
17 GOOG-SONOS-NDCA-00108181. It appears that a user could create such a “sync group” in a  
18 few different ways.

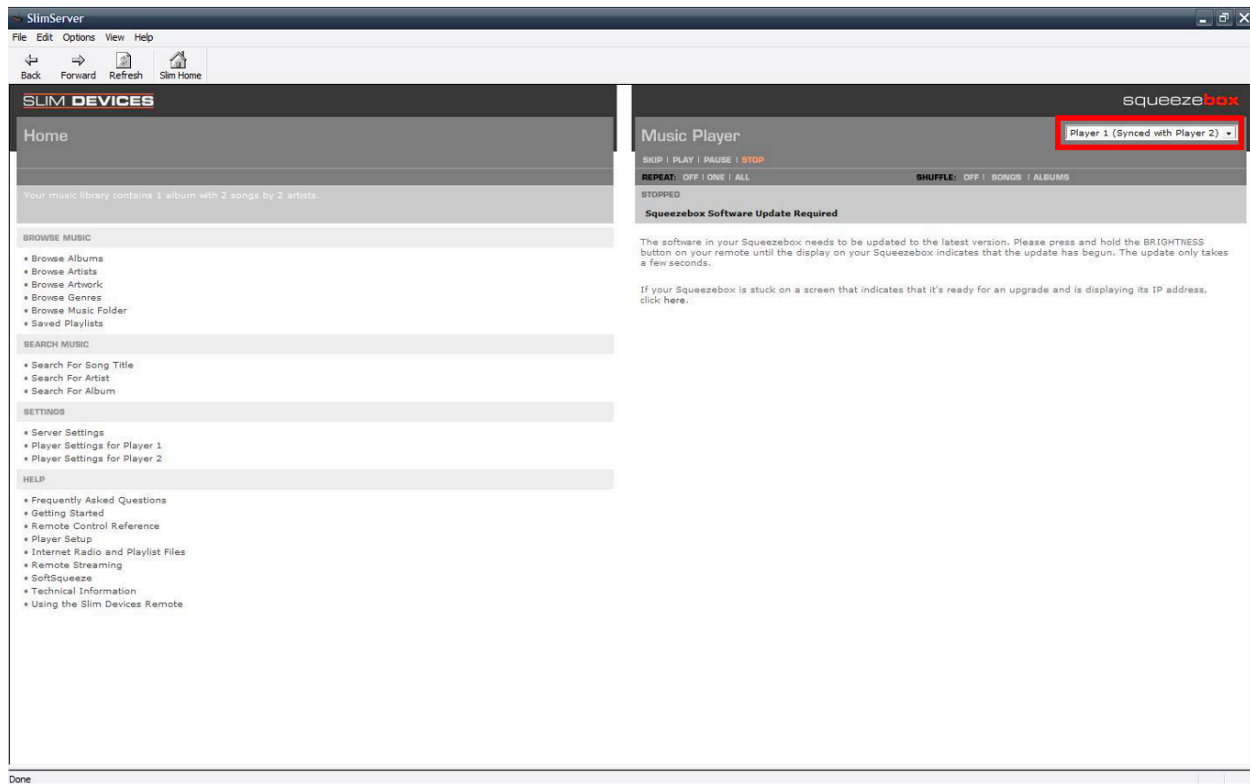
19          932. For instance, the Squeezebox evidence I have reviewed indicates that at some point  
20 in time it may have been possible for a user of a Squeezebox system to create a “sync group” by  
21 accessing a web-based user interface (UI) for the SlimServer software, navigating to the “Player  
22 Settings” page for a first Squeezebox player, selecting a second Squeezebox player from the  
23 “Synchronize” drop-down list, and then pressing the “Change” button in order to create a new  
24 “sync group” comprising the first and second Squeezebox players. One example of this process

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25  
26 <sup>36</sup> While the Squeezebox evidence I have reviewed says that Squeezebox players in a sync group  
27 were “synchronized,” it is my opinion that this configuration would not have provided  
28 “synchronous playback of media” as that phrase is used in the context of the ’966 Patent, because  
such a configuration would not have involved any coordination between the Squeezebox players  
that had been grouped.

1 for creating a “sync group” in a Squeezebox system is shown in the following screenshots from  
2 Dr. Schonfeld’s Opening Report:  
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Schonfeld Op. Report at ¶ 524 (excerpted and annotations added). These screenshots appear to show a hypothetical scenario where a version of the SlimServer software was used to create a “sync group” that includes Squeezebox players named “Player 1” and “Player 2,” although it is not clear what type of Squeezebox players were used for this hypothetical scenario.

933. The Squeezebox evidence I have reviewed indicates that at some point in time it may have also been possible for a user of a Squeezebox system to create a “sync group” using an infrared remote control for a hardware-based Squeezebox device, as described in the following “Frequently Asked Question” from the Slim Devices website:

**How do I synchronize two Squeezeboxes so they play the same audio?**

Navigate into the Player Settings area with the remote control. Choose Synchronize, then select the other player you want to synchronize with and press the RIGHT button. Both will play the same thing and you can control their synchronized playback from either remote. Go back to the same place and press RIGHT again to unsync.

You can also set up synchronization from the Player Settings page in the web interface.

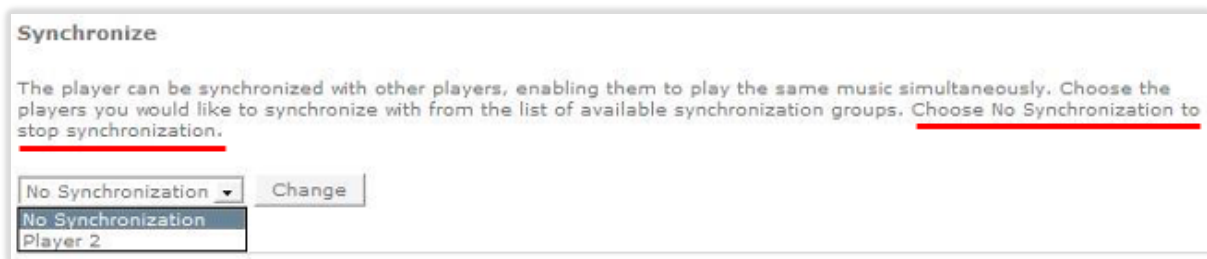
GOOG-SONOS-NDCA-00108095-588 at GOOG-SONOS-NDCA-00108169.

934. When a user created a “sync group” in one of the ways described above, the



Squeezebox evidence I have reviewed indicates that this would cause the SlimServer software to (i) store information about the newly-created “sync group” in a file on the computer running the SlimServer software and (ii) configure itself to control the audio buffer and playback on the Squeezebox players in the “sync group” in an effort to cause those Squeezebox players to play back the same music simultaneously. *See, e.g.,* Slim/Buttons/Synchronize.pm:functions():rightline; Slim/Player/Sync.pm:sync(), Sync.pm:unsync(), Sync.pm:saveSyncPrefs(); Slim/Utils/Prefs.pm; Slim/Player/Source.pm; Slim/Server/Squeezebox.pm; Slim/Player/Client.pm; GOOG-SONOS-NDCA-00108095-588 at GOOG-SONOS-NDCA-00108162, GOOG-SONOS-NDCA-00108169-70, GOOG-SONOS-NDCA-00108181.

935. Further, the Squeezebox evidence I have reviewed indicates that once a “sync group” was created, the particular Squeezebox players in the Squeezebox system that were added to the created “sync group” could not thereafter be used for individual audio playback until the “sync group” was subsequently destroyed. *See, e.g.,* Slim/Player/Source.pm; Slim/Server/Squeezebox.pm. This is confirmed by the above screenshots from Dr. Schonfeld’s Opening Report, which show that once the “sync group” including “Player 1” and “Player 2” is created, there is no way for a user to use either “Player 1” and “Player 2” for individual audio playback until the user destroys the “sync group” in some manner, such as by choosing the “No Synchronization” option in the “Player Settings” of “Player 1” or “Player 2,” as shown below:



Schonfeld Op. Report at ¶ 524 (excerpted and annotations added).

936. Based on the foregoing evidence, it is clear that a “sync group” created in this manner only existed temporarily during the limited time that the group was activated for playback, and as soon as a user wanted to use a Squeezebox player in an existing group for individual

1 playback or wanted to create a new group that included one or more of the Squeezebox players in  
2 the existing group, the existing group would need to be destroyed by removing the one or more  
3 Squeezebox players that the user wanted to use for individual playback or wanted to include in a  
4 new “sync group.” As a result, the only way a user could use a group having that same group  
5 membership again in the future was by re-creating a new temporary group that included the same  
6 members as the previously-existing group. And as explained above, such a temporary, ad-hoc  
7 group that was automatically activated at the time of creation and then only remained in existence  
8 during the limited time it was activated is distinctly different from a “zone scene,” which requires  
9 a user-customized, pre-saved group of “zone players” that is able to exist in an inactive state while  
10 remaining available for selection by a user so that it can later be invoked on demand for  
11 synchronous playback.

12 937. Indeed, as an initial matter, a “sync group” of Squeezebox players was not a pre-  
13 saved group that was available to be *later invoked on demand* for synchronous playback at some  
14 time after the creation of the “sync group,” which is a fundamental requirement of the claimed  
15 “zone scenes.” To the contrary, the Squeezebox evidence I have reviewed makes clear that a “sync  
16 group” of Squeezebox players was a temporary, ad-hoc group that was automatically activated at  
17 the time it was created and then only remained in existence until the time that the “sync group”  
18 was deactivated, at which time the “sync group” would be automatically destroyed such that the  
19 “sync group” was not available to be *later invoked on demand* for synchronous playback. *See,*  
20 *e.g.,* GOOG-SONOS-NDCA-00108095-588 at GOOG-SONOS-NDCA-00108169 (explaining  
21 that once a “sync group” is created, the SlimServer software will cause the “Squeezebox” players  
22 added to the “sync group” to “play the same thing” until the “sync group” is destroyed);  
23 Slim/Buttons/Synchronize.pm:functions():rightline; Slim/Player/Sync.pm:sync(),  
24 Sync.pm:unsync(), Sync.pm:saveSyncPrefs(); Slim/Utils/Prefs.pm; Slim/Player/Source.pm;  
25 Slim/Server/Squeezebox.pm; Slim/Player/Client.pm. This is confirmed by the various screenshots  
26 from Dr. Schonfeld’s Opening Report, including the ones I have reproduced above. *See* Schonfeld  
27 Op. Report at ¶ 524 (screenshots showing that the act of creating a “sync group” including “Player  
28 1” and “Player 2” causes the SlimServer software to automatically activate the “sync group” for

1 the entirety of its existence); ¶¶ 540-546 (screenshots showing that the act of creating a “sync  
2 group” including “player1,” “player2,” and “player3” causes the SlimServer software to  
3 automatically activate the “sync group” for the entirety of its existence); ¶¶ 616-620 (screenshots  
4 showing that the act of creating a “sync group” including “player1” and “player2” causes the  
5 SlimServer software to automatically activate the “sync group” for the entirety of its existence).

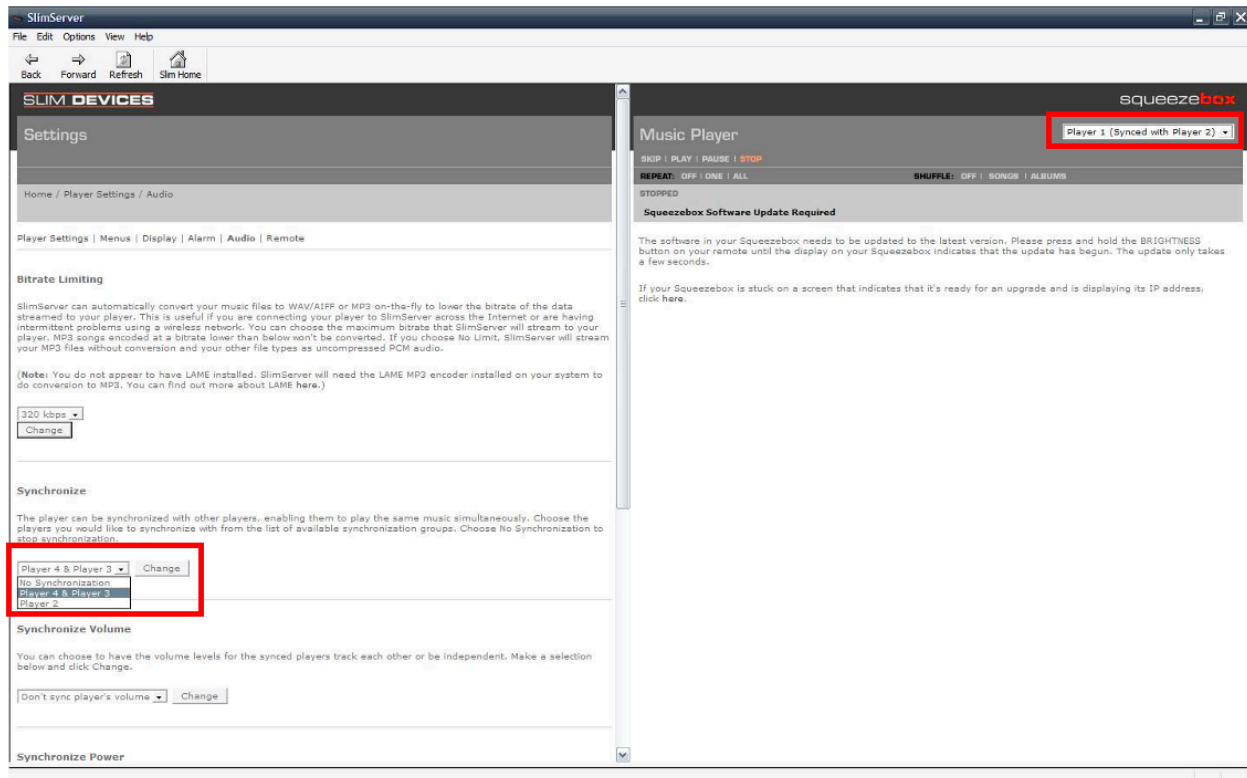
6 938. Further, a “sync group” of Squeezebox players was not a pre-saved group that was  
7 *able to exist in an inactive state* in which the pre-saved group was available for selection by a user  
8 but the “zone players” in the pre-saved group could still be used for individual audio playback,  
9 which is another fundamental requirement of the claimed “zone scenes.” To the contrary, the  
10 Squeezebox evidence I have reviewed makes clear that a “sync group” of Squeezebox players was  
11 only able to exist in an active state during which time it was not possible for a user to use any of  
12 the Squeezebox players added to the “sync group” for individual audio playback, and once a “sync  
13 group” was deactivated, it would be automatically destroyed such that it was no longer available  
14 for selection by a user. *See, e.g.,* GOOG-SONOS-NDCA-00108095-588 at GOOG-SONOS-  
15 NDCA-00108169; Slim/Player/Source.pm; Slim/Server/Squeezebox.pm. Again, this is confirmed  
16 by various screenshots from Dr. Schonfeld’s Opening Report, including the ones I have reproduced  
17 above. *See* Schonfeld Op. Report at ¶ 524 (screenshots showing that once the “sync group”  
18 including “Player 1” and “Player 2” is created, there is no way for a user to use either “Player 1”  
19 and “Player 2” for individual audio playback until the user destroys the “sync group” in some  
20 manner); ¶ 525 (screenshot showing that none of the Squeezebox players in the “sync group” are  
21 available to be used for individual audio playback); ¶¶ 540-546 (screenshots showing that once the  
22 “sync group” including “player1,” “player2,” and “player3” is created, there is no way for a user  
23 to use “player1” for individual audio playback until the user destroys the “sync group” in some  
24 manner); ¶¶ 616-620 (screenshots showing that once the “sync group” including “player1” and  
25 “player2” is created, there is no way for a user to use “player1” for individual audio playback until  
26 the user destroys the “sync group” in some manner).

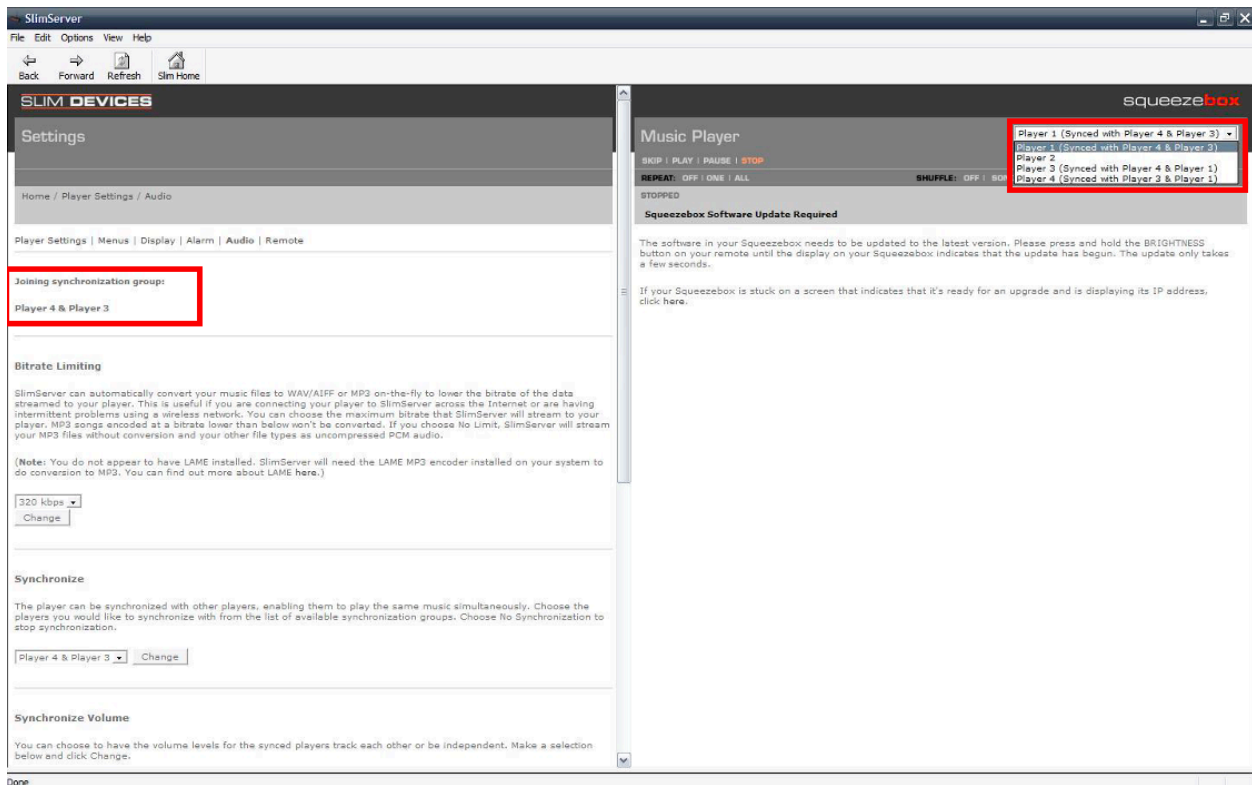
27 939. Further yet, a “sync group” of Squeezebox players was not a pre-saved group of  
28 “zone players” that are “*to be configured for synchronous playback of media*” when the pre-saved

1 group is “invoked” for the additional reason that the invocation of a “sync group” – which took  
2 place automatically at the time the “sync group” was created– did not involve any change to the  
3 *configuration* of the Squeezebox players as it relates to audio playback, which is another  
4 requirement of the claimed “zone scene.” To the contrary, the Squeezebox evidence I have  
5 reviewed indicates that a Squeezebox player added to a “sync group” would have had the same  
6 configuration for audio playback both before and after the “sync group” was invoked. *See, e.g.*,  
7 GOOG-SONOS-NDCA-00108095-588 GOOG-SONOS-NDCA-00108157 (explaining that the  
8 SlimServer software “powers Squeezebox”), GOOG-SONOS-NDCA-00108162 (same), GOOG-  
9 SONOS-NDCA-00108181 (explaining that “[t]he Slimserver controls the audio buffer and  
10 playback on all the players that are synchronized together”). In fact, based on my review of the  
11 Squeezebox evidence, it appears that a Squeezebox player would not have had any awareness that  
12 it had been added to a “sync group” that would have prompted the Squeezebox player to change  
13 its configuration for audio playback – the information about a “sync group” would have been  
14 exclusively maintained by the SlimServer software. *Id.*; *see also*  
15 Slim/Server/Squeezebox.pm:stream() (showing that the exact same ‘strm’ command was sent to  
16 every member of a “sync group” and that the ‘strm’ command did not include any indication that  
17 a Squeezebox player was part of a “sync group”); Schonfeld Op. Report at ¶ 366 (“The *SlimServer*  
18 *server* represents sync groups internally using the ‘master’, ‘slaves’, and ‘syncgroupid’ properties  
19 for a client (player).”), ¶ 368 (“The *SlimServer* persists the membership of a sync group by storing  
20 the definition of the syncgroupid property for each group member into the *SlimServer*’s  
21 preferences file.”). Dr. Schonfeld’s failure to rely on any source code for the Squeezebox players  
22 themselves further supports this opinion.

23 940. Still further, a “sync group” of Squeezebox players was not capable of having a  
24 group member that was also a member of a different “sync group” available for selection by a user,  
25 which is another requirement of the claimed “zone scenes.” To the contrary, the Squeezebox  
26 evidence I have reviewed establishes that a Squeezebox player could only be a member of one  
27 “sync group” that was in existence at any given time, and that the only way a Squeezebox player  
28 in a first “sync group” could have been added to a second “sync group” was to destroy the first

“sync group.” Slim/Player/Sync.pm:sync() (function that is called when a given client is added to new “sync group,” which starts out by calling an “unsync” function in order to remove the given client from any “sync group” that it was previously in), Sync.pm:unsync() (function that would be called by “sync” function in order to remove the given client from any “sync group” that it was previously in). This is confirmed by the screenshots below from Dr. Schonfeld’s report, which show that if “Player 1” is in a first “sync group” including “Player 1” and “Player 2,” the act of adding “Player 1” to a different “sync group,” such as a “sync group” including “Player 1,” “Player 3,” and “Player 4,” will first cause the “sync group” including “Player 1” and “Player 2” to be destroyed before the new “sync group” is created:





See Schonfeld Op. Report at ¶527.

941. Lastly, the Squeezebox evidence I have reviewed confirms that there was no ability for a user to assign a thematic name to a “sync group,” which fails to meet the additional “according to a common theme” requirement of Google's proposed construction of a “zone scene,” as interpreted by the Court.

942. Thus, for at least these reasons, it is my opinion that a “sync group” created by selecting a specific set of Squeezebox players in a Squeezebox system to group together into the “sync group” in an ad-hoc manner does not constitute a “zone scene.”

943. I also note that the Squeezebox evidence I reviewed never uses the term “zone scenes” or otherwise describes any technology that would have enabled a user to create a user-customized, pre-saved group of Squeezebox players that was able to exist in an inactive state while remaining available for selection by the user so that it could later be invoked on demand for synchronous playback.

944. For completeness, I further note that the evidence summarized above likewise establishes that the Squeezebox players in a Squeezebox system did not have any functional



1 capability to be added to a “zone scene” that was created at the request of a user or to operate in  
2 accordance with “zone scene” that was invoked at the request of a user. Rather, the Squeezebox  
3 players in a Squeezebox system were only capable of being added to and operating in accordance  
4 with a temporary, ad-hoc “zone group,” which was not a “zone scene” for all of the reasons  
5 explained above.

6 945. Despite this clear evidence establishing that computers installed with the  
7 SlimServer software and Squeezebox players did not have any “zone scenes” capability, Dr.  
8 Schonfeld nevertheless opines that the “zone scene” limitations required by the Asserted Claims  
9 of the '966 Patent were either disclosed or rendered obvious by the Squeezebox system. *See*  
10 Schonfeld Op. Report at ¶¶ 1006-1033. However, I find Dr. Schonfeld’s opinions regarding  
11 Squeezebox and the “zone scene” limitations of the Asserted Claims of the '966 Patent to be flawed  
12 for several reasons.

13 946. As an initial matter, Dr. Schonfeld fails to set forth any basis or reasoning for his  
14 opinions regarding Squeezebox and the “zone scene” limitations of the Asserted Claims of the  
15 '966 Patent. Instead, Dr. Schonfeld merely refers back to his discussion of certain claim limitations  
16 of Asserted Claim 1 of the '885 Patent and makes the following conclusory statement:

17  
18 1006. *See supra* '885 claim 1, Limitation 1.6. Included in my incorporation by reference  
19 is my discussion of the “first zone scene” disclosure in, e.g., 1.6. I include in my incorporation by  
20 reference the discussion of the creation of the first zone scene, its composition, its synchronous  
21 playback configuration, and the ability of invocation of that zone scene. Additionally, dependent  
22 claim 6 of the '966 patent informs the scope of independent claim 1. Dependent claim 6 of the  
23

24 However, the Asserted Claims of the '966 Patent are directed to a different type of device than  
25 Asserted Claim 1 of the '885 Patent (a “computing device” configured to “serv[e] as a controller”  
26 as opposed to a “zone player”), the Asserted Claims of the '966 Patent use different claim language  
27 than Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation  
28



1 as to how his prior discussion of Squeezebox in the context of the "zone scene" limitations of  
2 Asserted Claim 1 of the '885 Patent applies to the "zone scene" limitations of the Asserted Claims  
3 of the '966 Patent. In fact, Dr. Schonfeld fails to even state whether his opinion is that the "zone  
4 scene" limitations of the Asserted Claims of the '966 Patent were actually *disclosed* by  
5 Squeezebox versus whether his opinion is that the "zone scene" limitations of the Asserted Claims  
6 of the '966 Patent were only *rendered obvious* by Squeezebox. For these reasons, I disagree that  
7 Dr. Schonfeld's barebones discussion of the "zone scene" limitations of the '966 Patent amounts  
8 to a detailed and complete statement of all opinions to be expressed and the basis and reasons  
9 therefor, which I understand to be the governing standard for expert reports, and that barebones  
10 discussion has prejudiced my ability to fully discern, assess, and respond to his opinions regarding  
11 the "zone scene" limitations of the Asserted Claims of the '966 Patent.<sup>37</sup>

12 947. Moreover, I have reviewed the section of Dr. Schonfeld's Opening Report where  
13 he discusses Squeezebox in the context of claim limitation 1.6 of Asserted Claim 1 of the '885  
14 Patent, and nothing in that section of Dr. Schonfeld's Opening Report alters my opinion that  
15 Squeezebox did not include the "zone scenes" capability required by the Asserted Claims of the  
16 '966 Patent.

17 948. Indeed, Dr. Schonfeld's theories and opinions regarding the alleged existence of  
18 "zone scenes" capability in the Squeezebox system are all premised on Dr. Schonfeld's incorrect  
19 interpretation of what is required to qualify a "zone scene," and are also premised on several  
20 inaccurate and misleading characterizations of Squeezebox functionality and the evidence related  
21 thereto.

22 949. For instance, Dr. Schonfeld's opinion that a "sync group" is a "zone scene" appears  
23 to be based almost exclusively on his view that "the SlimServer allows a user to group together  
24 different Squeezebox and SoftSqueeze players so that synchronous playback is performed."  
25 Schonfeld Op. Report at ¶ 524; *see also id.* at ¶ 533 ("SlimServer supports synchronizing multiple  
26 Squeezebox players so that they play the same audio"), ¶ 549 ("[A] SlimDevice allowed a user to

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27 <sup>37</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

1 carry out an action to add a Squeezebox player to a group of Squeezeboxes so that synchronous  
2 playback is performed.”). While Dr. Schonfeld has not sufficiently established that a Squeezebox  
3 system in 2005 actually had this capability, even if this statement were true, the mere fact that a  
4 “sync group” could allegedly allow for “synchronous playback” does not make the “sync group”  
5 a “zone scene” – there are several other requirements of a “zone scene” that distinguish it from  
6 other types of playback groups, and a “sync group” fails to meet these other requirements for the  
7 reasons explained above.

8 950. Turning to paragraphs 526-532 of his Opening Report, Dr. Schonfeld makes  
9 various other statements about the alleged functionality of the Squeezebox system, including that  
10 (i) “[t]he user of SlimServer may change the name and identifiers of the Squeezebox devices,  
11 which in turn changes the name of the grouped Squeezebox devices,” (ii) “SlimServer allows a  
12 user to change the synchronization groups after they have been created and stored,” (iii)  
13 “SlimServer also allows a Squeezebox to play media without being in a synchronization group,  
14 which corresponds to the claimed standalone mode,” (iv) “[t]hat media may be accessible to the  
15 SlimServer and organized and processed by the SlimServer software such that it can be delivered  
16 to one or more Squeezeboxes,” and (v) “[t]he user may name the Squeezebox something other  
17 than its IP address.” Schonfeld Op. Report at ¶¶ 526-532. While Dr. Schonfeld has not sufficiently  
18 established that a Squeezebox system in 2005 had this described functionality, even if all these  
19 statements were accurate, they fail to establish that a “sync group” of Squeezebox players is a  
20 “zone scene” as claimed, which requires a user-customized, pre-saved group of “zone players”  
21 that is able to exist in an inactive state while remaining available for selection by a user so that it  
22 can be later invoked on demand for synchronous playback.

23 951. In fact, if anything, Dr. Schonfeld’s statements at paragraphs 526-532 provide  
24 further support for my opinion that a “sync group” is not a “zone scene.” For example, Dr.  
25 Schonfeld’s statement that “Slim Server also allows a Squeezebox to play media without being in  
26 a synchronization group, which corresponds to the claimed standalone mode” is consistent with  
27 my understanding that a Squeezebox player could only be used for individual audio playback at  
28 times when it was not in a “sync group,” which is due to the fact that a “sync group” is unable to

1 exist in an inactive state and is one of the reasons that a “sync group” fails to amount to a “zone  
2 scene.” As another example, Dr. Schonfeld’s statement that the “media” played by the Squeezebox  
3 players was “processed by the SlimServer software such that it can be delivered to one or more  
4 Squeezeboxes” is consistent with my understanding that the “sync group” functionality was  
5 exclusively controlled by the SlimServer software and the Squeezebox players themselves did not  
6 make any change to their configuration as it relates to audio playback when a “sync group” was  
7 created and automatically activated.

8 952. Turning next to paragraphs 534-547 of his Opening Report, Dr. Schonfeld describes  
9 and cites to, among other things, various SlimServer source code that was allegedly involved in  
10 the process for creating a Squeezebox “sync group.” *See* Schonfeld Op. Report at ¶¶ 534-547; *see*  
11 *also id.* at ¶¶ 550-552, 556-564. However, Dr. Schonfeld’s discussion of the SlimServer source  
12 code in these paragraphs is entirely consistent with my understanding of the “sync group”  
13 functionality that is summarized above, and as such, that discussion provides further support for  
14 my opinion that a “sync group” of Squeezebox players is not a “zone scene.”

15 953. In his Opening Report, Dr. Schonfeld also describes certain scenarios where at least  
16 one member of the “sync group” is “powered off” either at the time of the creation of the “sync  
17 group” or after the “sync group” is created. *See, e.g.,* Schonfeld Op. Report at ¶¶ 515-520, 553,  
18 ¶¶ 574-589, 608-621, 648-656, 675-737, 765-779. According to Dr. Schonfeld, these scenarios  
19 show that “the Squeezebox/SlimServer system can separate sync group definition from active sync  
20 group participation with respect to powered-off players,” because “[a] powered-off player is  
21 temporarily unsynced but still defined to be part of the persistent sync group.” *Id.* at ¶¶ 574, 765.  
22 And while it is not entirely clear because he never actually ties this scenario to the requirements  
23 of a “zone scene,” it appears that Dr. Schonfeld is relying on this alleged capability as further  
24 support for his opinion that a “sync group” is a “zone scene.” *See* Schonfeld Op. Report at ¶ 574.  
25 If so, I disagree that this alleged capability of a Squeezebox “sync group” to include a “powered-  
26 off player” suddenly transforms such a “sync group” into a “zone scene.”

27 954. As explained above, the “sync group” functionality of a Squeezebox system was  
28 controlled exclusively by the SlimServer software, and from the perspective of the SlimServer

1 software, a “sync group” was automatically activated at the time of its creation and then remained  
2 activated (and thus “invoked”) for the entirety of its existence, regardless of whether any of the  
3 Squeezebox players in the “sync group” were powered off during the time that the “sync group”  
4 is in existence. *See, e.g.* Slim/Player/Sync.pm:sync(), Sync.pm:unsync(),  
5 Sync.pm:saveSyncPrefs(); Slim/Utils/Prefs.pm; Slim/Player/Source.pm;  
6 Slim/Server/Squeezebox.pm. Or said another way, once the “sync group” was created, the  
7 SlimServer software would have been configured to cause the Squeezebox players in the “sync  
8 group” to be controlled and used as part of the “sync group” for the entirety of the group’s  
9 existence, regardless of whether any of the Squeezebox players in the “sync group” were powered  
10 off during the time that the “sync group” was in existence. The Squeezebox evidence I have  
11 reviewed confirms this in various ways.

12 955. First, the Squeezebox evidence I have reviewed demonstrates that, if a “sync group”  
13 was created that included one or more powered-off Squeezebox players, the “sync group” profile  
14 saved by the SlimServer software would have identified all of the members of the “sync group” –  
15 including any powered-off Squeezebox player(s) – and the SlimServer software operated in  
16 accordance with this “sync group” profile when carrying out functionality with respect to the  
17 Squeezebox players in the “sync group.” *See, e.g.* Slim/Player/Sync.pm:sync(),  
18 Sync.pm:unsync(), Sync.pm:saveSyncPrefs(); Slim/Utils/Prefs.pm. Dr. Schonfeld’s own  
19 discussion of this functionality in his Opening Report confirms this. *See* Schonfeld Op. Report at  
20 ¶¶ 517-519, 581, 588, 621, 656, 770, 777. This shows that, from the perspective of the SlimServer  
21 software, the “sync group” would have been activated regardless of whether any group member  
22 was powered off.

23 956. Second, the Squeezebox evidence I have reviewed demonstrates that, if a “sync  
24 group” was created that included one or more powered-off Squeezebox players, the UI for the  
25 SlimServer software (and the powered-on Squeezebox players in the “sync group”) would have  
26 shown that all of the Squeezebox players in the “sync group” were grouped together and “synched”  
27 to one another – including any powered-off Squeezebox player(s) in the “sync group” – and the  
28 Squeezebox players in the “sync group” would have been controlled as a group. *See* Schonfeld

1 Op. Report at ¶¶ 517 (screenshots showing that “player1” and “player3” are “synched” even  
2 though “player3” is powered off), 619-620 (screenshots showing that “player1” and “player2” are  
3 “synched” even though “player2” is powered off), ¶¶ 654-655 (screenshots showing that “player1”  
4 and “player3” are “synched” even though “player3” is powered off), ¶ 676 (screenshot showing  
5 that “player1” is “Synched with player3” even though “player3” is powered off), ¶ 680 (screenshot  
6 showing that “player3” is “Synched with player1” and shares the same “playlist” even though  
7 “player3” is powered off). This again shows that, from the perspective of the SlimServer software,  
8 the “sync group” would have been activated regardless of whether any group member is powered  
9 off.

10 957. Third, the Squeezebox evidence I have reviewed demonstrates that, if a “sync  
11 group” was created that included a powered-off Squeezebox player and playback was then initiated  
12 on that “sync group” via the powered-off Squeezebox player, this would cause the powered-off  
13 Squeezebox players in the “sync group” to automatically power back on and participate in the  
14 playback. Slim/Player/Source.pm:playmode() (commenting that “if the player is off, we  
15 automatically power on when we start to play”); *see also* Schonfeld Op. Report at ¶¶ 515-519.  
16 This once again shows that, from the perspective of the SlimServer software, the “sync group” is  
17 activated regardless of whether any group member is powered off.

18 958. Fourth, the Squeezebox evidence I have reviewed demonstrates that, if a “sync  
19 group” was created that included one or more powered-off Squeezebox players, the SlimServer  
20 software would have still considered each powered-on Squeezebox player to be a member of an  
21 active “sync group” unless and until the “sync group” was destroyed by a user in some manner,  
22 which confirms that the “sync group” itself remains activated for the entirety of its existence even  
23 if a Squeezebox player in the “sync group” could be powered off. *See* Slim/Player/Source.pm;  
24 Slim/Server/Squeezebox.pm; *see also* Schonfeld Op. Report at ¶ 524 (screenshots showing that  
25 once the “sync group” including “Player 1” and “Player 2” is created, there is no way for a user to  
26 use either “Player 1” and “Player 2” for individual audio playback until the user destroys the “sync  
27 group” in some manner); ¶ 525 (screenshot showing that none of the Squeezebox players in the  
28 “sync group” are available to be used for individual audio playback); ¶¶ 540-546 (screenshots

1 showing that once the “sync group” including “player1,” “player2,” and “player3” is created, there  
2 is no way for a user to use “player1” for individual audio playback until the user destroys the “sync  
3 group” in some manner); ¶¶ 616-620 (screenshots showing that once the “sync group” including  
4 “player1” and “player2” is created, there is no way for a user to use “player1” for individual audio  
5 playback until the user destroys the “sync group” in some manner).

6 959. For these and other reasons, a POSITA would not consider a “sync group” that  
7 includes a powered-off Squeezebox player to be a *pre-saved* group that is *able to exist in an*  
8 *inactive state* in which the members of the group could be used for individual playback while the  
9 group remains available for selection by a user so that it can be later invoked on demand for  
10 synchronous playback.

11 960. Dr. Schonfeld’s position to the contrary appears to be based almost exclusively on  
12 his allegation that, in a scenario where every “sync group” member but one is powered off, the  
13 lone powered-on Squeezebox player in the “sync group” could be used for individual playback  
14 because every other Squeezebox player in the “sync group” would be powered off and thus not be  
15 available for playback. Schonfeld Op. Report at ¶¶ 515-520, 779. However, in my opinion, a  
16 POSITA would not consider a “sync group” in this corner-case scenario to meet the requirements  
17 of a “zone scene.”

18 961. As an initial matter, as explained above, the SlimServer software that was  
19 exclusively responsible for controlling the “sync group” functionality in a Squeezebox system, and  
20 from the SlimServer software’s perspective, the “sync group” in this corner-case scenario would  
21 still be considered to be activated and the Squeezebox players would all still be considered to be  
22 members of the activated “sync group” regardless of the fact that some members of the “sync  
23 group” were powered off.

24 962. Further, I disagree that a POSITA would consider a “sync group” in this corner-  
25 case scenario to amount to a pre-saved group existing in an inactive state in which the members of  
26 the group could be used for individual playback, which is a fundamental requirement of a “zone  
27 scene.” Indeed, a POSITA would understand that in order to satisfy the “zone scene” requirement  
28 of a pre-saved group existing in an inactive state in which the members of the group could be used

1 for individual playback, a user must have the ability to use *each* of the group members for  
2 individual playback while the group remains in existence. Or in other words, when the pre-saved  
3 group of a “zone scene” is in an inactivate state, a user must have the ability to use the members  
4 of the pre-saved group in the same ways that the members could be used if the pre-saved group  
5 did not exist. This would not have been case for the “sync group” in Dr. Schonfeld’s corner-case  
6 scenario. Rather, the only way to construct a scenario where one of the “sync group” members  
7 could be used for individual playback would be to power off every other member of the “sync  
8 group,” which means that those other member(s) would not be available for playback.

9 963. Further yet, I disagree that a POSITA would have considered the “sync group” in  
10 Dr. Schonfeld’s corner-case scenario to be available for selection by a user so that it can be later  
11 invoked on demand for synchronous playback, which is a fundamental requirement of a “zone  
12 scene.” There are two reasons for this. First, from the respective of the SlimServer software, the  
13 “sync group” would have been invoked automatically at the time of its creation, so any future  
14 interaction with the “sync group” in this corner-case scenario would not amount to a later  
15 invocation of the “sync group” on demand for synchronous playback. Second, a “sync group”  
16 including one or more members that are powered off would not be *available to be selected by a*  
17 *user on demand for synchronous playback* because the powered-off Squeezebox players in the  
18 “sync group” would not have been available for playback. Rather, a user would have to power on  
19 each of the powered-off Squeezebox players before the “sync group” became available for  
20 selection by the user, which would then eliminate the ability to use any of the members for  
21 individual playback. Thus, even in this corner-case scenario, it would have never been possible to  
22 have a “sync group” existing in a state in which a member could be used for individual playback  
23 while the “sync group” was simultaneously *available to be selected by a user on demand for*  
24 *synchronous playback*.

25 964. Still further, I note that this corner-case scenario in which a member of an existing  
26 “sync group” could be used for individual playback would have only applied to a “sync group”  
27 where every single member but one was powered off. In all other scenarios where two or more  
28 “sync group” members were powered on, it would not be possible to use any one of the “sync



1 group” members for individual playback, which further supports my opinion that a “sync group”  
2 is not a “zone scene.”

3 965. Lastly, taking a step back, there appears to be no real dispute that as long as the  
4 members of a “sync group” were powered up, it was only possible to control and use those  
5 members as part of the group, and none of the members could be used for individual playback,  
6 which clearly demonstrates that a “sync group” was an ad-hoc group and not a “zone scene.” The  
7 fact that the members of such a “sync group” could also be powered off while the “sync group”  
8 was in existence does not somehow transform the “sync group” into a “zone scene.”

9 966. In addition to the foregoing reasons why a “sync group” comprising a powered-off  
10 Squeezebox player is not a claimed “zone scene,” it is my opinion that such a scenario also fails  
11 to meet various other limitations of Asserted Claim 1 of the ’966 Patent, as explained in further  
12 detail below.

13 967. Turning to paragraphs 762-763 of his Opening Report, Dr. Schonfeld also suggests  
14 that a “sync group” in a Squeezebox system is a “zone scene” simply because it can exist at times  
15 when playback is not occurring at the group. *See* Schonfeld Op. Report at ¶¶ 762-763. However,  
16 this theory appears to be on a misunderstanding of what is required for a “zone scene” as well as  
17 a mischaracterization of Sonos’s position.

18 968. To be clear, the functions of invoking a group and playing back media to a group  
19 are two different things, and a group does not satisfy the requirements of a “zone scene” simply  
20 because it can exist at times when playback is not occurring at the group. To the contrary, a “zone  
21 scene” requires a user-customized, pre-saved group of zone players that is able to exist in an  
22 *inactive state in which the members of the group could be used for individual playback* while the  
23 group remains available for selection by a user so that the group can be invoked later on demand  
24 for synchronous playback – at which point the members of the group would be controlled and used  
25 as part of the group. A “sync group” of Squeezebox players does not meet these requirements for  
26 all of the reasons explained above.

27 969. Turning to Asserted Claim 1’s additional requirement that the claimed “computing  
28 device” be programmed with functional capability for causing the creation of two overlapping

1 “zone scenes” that co-exist with one another and are both available for selection by a user at the  
2 same time, Dr. Schonfeld opines that a Squeezebox player would have met this requirement as  
3 well, based on the following theory:

4 [A] single player may be defined in separate sync groups on different SlimServer  
5 configurations, persisted to different preferences files. As one example, a player  
6 may be used with different servers, which define different sync groups and persist  
7 to different preferences files. One example (v6.2.1) is using a player both with a  
8 local SlimServer and with the SqueezeNetwork. As another example, a player may  
be used with different invocations of the same server. Each invocation uses a  
different preference file, specified on the command line using the '--prefsfile'  
option.

9 Schonfeld Op. Report at ¶ 573; *see also id.* at ¶¶ 115 (“[A] single player may be defined in separate  
10 sync groups on different SlimServer configurations, saved in different preferences files. One  
11 example (v6.2.1) is using a player both with a local SlimServer and with the SqueezeNetwork. As  
12 another example, a player may be used with different invocations of the same server, where each  
13 invocation uses a different preference file that is specified on the command line using the  
14 ‘prefsfile’ option.”), 590-593 (discussing a “‘serv’ SlimProto message from SlimServer to player  
15 that tells a player to switch servers”); ¶¶ 594-739 (describing testing of a hypothetical setup that  
16 allegedly included two VMs running separate instances of SlimServer software and three VMs  
17 running separate instances of SoftSqueeze software and was allegedly used to create a first “sync  
18 group” including “player1” and “player2” while the players were connected to the first SlimServer  
19 instance and then to create a second “sync group” including “player1” and “player3” while the  
20 players were subsequently connected to the second SlimServer). However, this theory is flawed  
21 for a number of reasons.

22 970. First, a “sync group” of Squeezebox players is not a “zone scene” for all of the  
23 reasons explained above. Thus, for this reason alone, Dr. Schonfeld’s attempt to rely on “sync  
24 groups” created using two independent SlimServer instances fails to meet the claimed requirement  
25 that the “computing device” be programmed with functional capability for causing the creation of  
26 two overlapping “zone scenes” that co-exist with one another and are both available for selection  
27 by a user at the same time.

28 971. Second, even setting aside the other fundamental differences between a “sync

group” and a “zone scene,” I disagree that using two independent SlimServer instances to create two different “sync groups” meets the claimed requirement that the “computing device” be programmed with functional capability for causing the creation of two overlapping “zone scenes” within the same “networked media playback system” that co-exist with one another and are both available for selection by a user such that the user can select between them for purposes of requesting invocation. In such a hypothetical scenario, the Squeezebox players could only be connected to one SlimServer instance (and thus one Squeezebox system) at any given time – as confirmed by Dr. Schonfeld’s own description – and once the Squeezebox players are disconnected from the first SlimServer instance, they would be removed from the Squeezebox system defined by the first SlimServer instance and a POSITA would no longer consider the Squeezebox players to be members of any “sync group” that was created at the first SlimServer instance. To the contrary, a POSITA would understand that when the Squeezebox players were hypothetically disconnected from the first SlimServer instance and connected to the second SlimServer instance, this would have formed an entirely different system defined by the second SlimServer instance in which the previously-created “sync group” does not exist and is certainly not available to be selected or used for audio playback.

972. Third, Dr. Schonfeld fails to present any evidence that the hypothetical setup he describes where a user installed and used two different SlimServer instances to create two different “sync groups” including the same Squeezebox player was ever actually implemented – let alone implemented at a time that would qualify it as prior art to the ’966 Patent.

973. Fourth, Dr. Schonfeld’s multiple SlimServer theory is also premised on a number of statements that are unclear, unsupported, and/or otherwise fail to provide support for Dr. Schonfeld’s opinion that a Squeezebox player could be a member of two different “sync groups” that were both in existence at the same time.

974. For example, Dr. Schonfeld says that “a player may be used with different invocations of the same server,” but Dr. Schonfeld fails to explain or provide support for this statement, and it is not clear what this means or how it differs from Dr. Schonfeld’s hypothetical scenario involving two different SlimServer instances. As another example, Dr. Schonfeld says

1 that “SlimServer v6.2.1 supports a ‘serv’ SlimProto message from SlimServer to player that tells a  
2 player to switch servers,” but Dr. Schonfeld fails to explain the significance or relevance of this  
3 alleged functionality to his opinion that a Squeezebox player could be a member of two different  
4 “sync groups” that are both in existence at the same time, nor does he explain how such alleged  
5 functionality would be incorporated into SlimServer v5.3.1 upon which he primarily relies. *See*  
6 Schonfeld Op. Report at ¶¶ 590-591; *see also id.* at ¶ 115 (“[A] single player may be defined in  
7 separate sync groups on different SlimServer configurations, saved in different preferences files.  
8 One example (v6.2.1) is using a player both with a local SlimServer and with the SqueezeNetwork.  
9 As another example, a player may be used with different invocations of the same server, where  
10 each invocation uses a different preference file that is specified on the command line using the  
11 ‘prefsfile’ option.”). As yet another example, Dr. Schonfeld mentions “[t]he SlimProto TCP  
12 Protocol documentation on the current Squeezebox Wiki” that describes a “*later* version of the  
13 ‘serv’ message” that allegedly “supports a ‘\$syncgroupid’ optional parameter to enable a player to  
14 re-join its sync group when the player connects to the new server,” but Dr. Schonfeld fails to  
15 establish that this “*later* version of the ‘serv’ message” was incorporated into any Squeezebox  
16 system that could possibly qualify as prior art – nor have I seen any evidence of this – and Dr.  
17 Schonfeld fails likewise to explain the significance or relevance of this “later version of the ‘serv’  
18 message” to his opinion that a Squeezebox player could be a member of two different “sync  
19 groups” that are both in existence at the same time. *Id.* at ¶¶ 592-593; SONOS-SVG2-00226941-  
20 946

21 ([https://wiki.slimdevices.com/index.php/SlimProtoTCPProtocol.html#Command\\_.22grfd.22](https://wiki.slimdevices.com/index.php/SlimProtoTCPProtocol.html#Command_.22grfd.22)).

22 975. In any event, none of these statements change my opinion that a computer installed  
23 with the SlimServer software in a Squeezebox system did not have the functional capability to  
24 cause the creation of a single “zone scene,” let alone the capability to cause the creation of two  
25 overlapping “zone scenes” that co-exist with one another and are simultaneously available for  
26 selection by a user.

27 976. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that a computer  
28 installed with the SlimServer software in a Squeezebox system did not have **any** functional

1 capability for creating or invoking a “zone scene” – let alone the required functional capability to  
2 cause the creation of two different, overlapping “zone scenes” that are both available for selection  
3 by a user and then later cause a selected one of the two different “zone scenes” to be invoked, as  
4 required by Asserted Claim 1 of the ’966 Patent.

5 **iii. Squeezebox Did Not Meet Limitations 1.4 / 1.5**

6 977. When read together, limitations 1.4 and 1.5 of Asserted Claim 1 of the ’966 Patent  
7 require the “computing device” to be encoded with executable “program instructions” that cause  
8 the computing device to perform the following function(s):

9 **[1.4]** while serving as a controller for a networked media playback system comprising a  
10 first zone player and at least two other zone players, wherein the first zone player is  
11 operating in a standalone mode in which the first zone player is configured to play back  
media individually:

12 **[1.5]** receiving a first request to create a first zone scene comprising a first  
13 predefined grouping of zone players including at least the first zone player and a  
14 second zone player that are to be configured for synchronous playback of media  
when the first zone scene is invoked;

15 978. In my opinion, Squeezebox did not meet this requirement.

16 979. As explained above, the evidence I have reviewed establishes that a computer  
17 installed with the SlimServer software in a Squeezebox system was only capable of receiving  
18 requests to form ad-hoc “sync groups,” which are not the claimed “zone scenes” for the reasons  
19 explained above. Thus, for this reason, a computer installed with the SlimServer software did not  
20 have the required functional capability to “receiv[e] a *first request to create a first zone scene*  
21 *comprising a first predefined grouping of [Squeezebox players] including at least the first*  
22 *[Squeezebox player] and a second [Squeezebox player] that are to be configured for synchronous*  
23 *playback of media when the first zone scene is invoked.*”

24 980. Despite this clear evidence establishing that a computer installed with the  
25 SlimServer software did not have any “zone scenes” capability, Dr. Schonfeld nevertheless opines  
26 that claim limitations 1.4 and 1.5 of Asserted Claim 1 of the ’966 Patent were either disclosed or  
27 rendered obvious by Squeezebox. *See* Schonfeld Op. Report at ¶¶ 1005-1006. However, I find  
28 Dr. Schonfeld’s opinions regarding Squeezebox and claim limitations 1.4 and 1.5 of Asserted

Claim 1 of the '966 Patent to be flawed for several reasons.

981. As an initial matter, the entirety of Dr. Schonfeld's discussion regarding Squeezebox and claim limitations 1.4 and 1.5 of Asserted Claim 1 of the '966 Patent is shown in the screenshots below from Dr. Schonfeld's Opening Report:

(v) *Limitation 1.4 "while serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players, wherein the first zone player is operating in a standalone mode in which the first zone player is configured to play back media individually:"*

1005. *See supra* '885 claim 1, "network device" disclosure in, e.g., 1.6, 1.7, 1.9, "network interface" disclosure in, e.g., 1.1., "zone player" disclosure in e.g., preamble, 1.1, 1.4-1.7, 1.9-1.10, "standalone mode" disclosure in e.g., 1.5, 1.8, 1.10.



(vi) *Limitation 1.5 receiving a first request to create a first zone scene comprising a first predefined grouping of zone players including at least the first zone player and a second zone player that are to be configured for synchronous playback of media when the first zone scene is invoked;*

1006. *See supra* '885 claim 1, Limitation 1.6. Included in my incorporation by reference is my discussion of the “first zone scene” disclosure in, e.g., 1.6. I include in my incorporation by reference the discussion of the creation of the first zone scene, its composition, its synchronous playback configuration, and the ability of invocation of that zone scene. Additionally, dependent claim 6 of the '966 patent informs the scope of independent claim 1. Dependent claim 6 of the '966 patent recites that “wherein the first predefined grouping of zone players does not include the third zone player, and wherein the second predefined grouping of zone players does not include the second zone player,” effectively requiring that the first and second predefined groupings of zone players not be entirely overlapping, each with the same three zone players. Because claim 6 depends from claim 1 and must necessarily narrow the scope of claim 1, I understand that claim 1 includes first and second predefined groupings of zone players, where those groupings of zone players **can** wholly overlap. Indeed, such an overlap scenario would be consistent e.g., with a user having a user-created zone group including all three zone players, and having a “Party Mode,” *i.e.*, a zone group including all three zone players. I therefore incorporate by reference the disclosure of “party mode” from my discussion, *supra*, regarding claim 1 of the '885 patent.

982. As these screenshots demonstrate, Dr. Schonfeld has not provided any analysis of how Squeezebox allegedly meets these limitations of Asserted Claim 1 of the '966. Instead, Dr. Schonfeld is relying exclusively on his prior discussion of Squeezebox in the context of certain claim limitations of the '885 Patent with the exception of the latter part of paragraph 1006, where he discusses dependent claim 6 and Sonos's “zone group” and “Party Mode” functionality. However, the Asserted Claims of the '966 Patent are directed to a different type of device than



1 Asserted Claim 1 of the '885 Patent (a “computing device” configured to “serv[e] as a controller”  
2 as opposed to a “zone player”), claim limitations 1.4 and 1.5 of Asserted Claim 1 of the '966 Patent  
3 use different claim language than the limitations of Asserted Claim 1 of the '885 Patent, and Dr.  
4 Schonfeld fails to provide any further explanation as to how his prior discussion of Squeezebox in  
5 the context of the claim limitations of Asserted Claim 1 of the '885 Patent applies to claim  
6 limitations 1.4 and 1.5 of Asserted Claim 1 of the '966 Patent. In fact, Dr. Schonfeld fails to even  
7 state whether his opinion is that claim limitations 1.4 and 1.5 of Asserted Claim 1 of the '966  
8 Patent were actually *disclosed* by Squeezebox versus whether his opinion is that claim limitations  
9 1.4 and 1.5 of Asserted Claim 1 of the '966 Patent were only *rendered obvious* by the Squeezebox.  
10 And along similar lines, Dr. Schonfeld never once articulates what he considers to be the claimed  
11 “first request to create a first zone scene” in Squeezebox. For these reasons, I disagree that Dr.  
12 Schonfeld’s barebones discussion of claim limitations 1.4 and 1.5 of Asserted Claim 1 of the '966  
13 Patent amounts to a detailed and complete statement of all opinions to be expressed and the basis  
14 and reasons therefor, which I understand to be the governing standard for expert reports, and that  
15 barebones discussion has prejudiced my ability to fully discern, assess, and respond to his opinions  
16 regarding claim limitations 1.4 and 1.5 of Asserted Claim 1 of the '966 Patent.<sup>38</sup>

17 983. With that said, as I have discussed above in Section XV.B.1.ii as well as in my '885  
18 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld’s analysis of  
19 Squeezebox in the context of Asserted Claim 1 of the '885 Patent suffers from a number of flaws,  
20 many of which are applicable to claim limitations 1.4 and 1.5 of Asserted Claim 1 of the '966  
21 Patent as well – including that his analysis is premised on both an incorrect interpretation of what  
22 is required to qualify as a “zone scene” and an inaccurate and misleading characterization of  
23 Squeezebox functionality and the evidence related thereto.

24 984. Lastly, the latter part of paragraph 1006 where he discusses dependent claim 6 and  
25 Sonos’s “zone group” and “Party Mode” functionality appears to be a verbatim copy of paragraph  
26 972 from the section of Dr. Schonfeld’s Opening Report related to Sonos’s 2005 system, which I

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27 <sup>38</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

1 already addressed above. I fail to see how this paragraph discussing Sonos's "zone group" and  
2 "Party Mode" functionality has any relevance to Squeezebox, which did not have "zone groups"  
3 or a hard-coded "All Zones-Party Mode" option, and it appears to me that Dr. Schonfeld's  
4 inclusion of this paragraph in his section directed to Squeezebox may have been a copy/paste error.

5 985. Thus, nothing in Dr. Schonfeld's Opening Report alters my opinion that a computer  
6 installed with the SlimServer software in a Squeezebox system did not have the functional  
7 capability required by limitations 1.4 / 1.5 of Asserted Claim 1 of the '966 Patent.

8 **iv. Squeezebox Did Not Meet Limitations 1.4 / 1.6**

9 986. When read together, limitations 1.4 and 1.6 of Asserted Claim 1 of the '966 Patent  
10 require the "computing device" to be encoded with executable "program instructions" that cause  
11 the computing device to perform the following function(s):

12 [1.4] while serving as a controller for a networked media playback system comprising a  
13 first zone player and at least two other zone players, wherein the first zone player is  
14 operating in a standalone mode in which the first zone player is configured to play back  
media individually:

15 ...

16 [1.6] based on the first request, i) causing creation of the first zone scene, ii)  
17 causing an indication of the first zone scene to be transmitted to the first zone  
player, and iii) causing storage of the first zone scene;

18 987. In my opinion, Squeezebox did not meet this requirement.

19 988. As explained above, the evidence I have reviewed establishes that a computer  
20 installed with the SlimServer software in a Squeezebox system was only capable of forming ad-  
21 hoc "sync groups," which are not the claimed "zone scenes" for the reasons explained above.  
22 Thus, for this reason, a computer installed with the SlimServer software did not have the required  
23 functional capability to "i) caus[e] creation of the first zone scene, ii) caus[e] an indication of the  
24 first zone scene to be transmitted to the first [Squeezebox player], and iii) caus[e] storage of the  
25 first zone scene."

26 989. Despite this clear evidence establishing that a computer installed with the  
27 SlimServer software did not have any "zone scenes" capability, Dr. Schonfeld nevertheless opines  
28

that claim limitations 1.4 and 1.6 of Asserted Claim 1 of the '966 Patent were either disclosed or rendered obvious by Sonos's 2005 system. *See* Schonfeld Op. Report at ¶¶ 1005, 1007. However, I find Dr. Schonfeld's opinions regarding Sonos's 2005 system and claim limitations 1.4 and 1.6 of Asserted Claim 1 of the '966 Patent to be flawed for several reasons.

990. As an initial matter, the entirety of Dr. Schonfeld's discussion regarding Squeezebox and claim limitations 1.4 and 1.6 of Asserted Claim 1 of the '966 Patent is shown in the screenshots below from Dr. Schonfeld's Opening Report:

(v) *Limitation 1.4 "while serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players, wherein the first zone player is operating in a standalone mode in which the first zone player is configured to play back media individually:"*

1005. *See supra* '885 claim 1, "network device" disclosure in, e.g., 1.6, 1.7, 1.9, "network interface" disclosure in, e.g., 1.1., "zone player" disclosure in e.g., preamble, 1.1, 1.4-1.7, 1.9-1.10, "standalone mode" disclosure in e.g., 1.5, 1.8, 1.10.

(vii) *Limitation 1.6 based on the first request, i) causing creation of the first zone scene, ii) causing an indication of the first zone scene to be transmitted to the first zone player, and iii) causing storage of the first zone scene;*

1007. *See supra* '885 claim 1, Limitation 1.6.

991. As these screenshots demonstrate, Dr. Schonfeld is relying exclusively on his prior discussion of Squeezebox in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a "zone player"), claim limitations 1.4 and 1.6 of Asserted Claim 1 of the '966 Patent use different claim language than the limitations of Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion of Squeezebox in the context of the claim limitations of Asserted Claim 1 of the '885 Patent applies to claim limitations 1.4 and 1.6 of Asserted Claim 1 of the '966 Patent. In fact, Dr. Schonfeld fails to even state whether his opinion is that claim limitations 1.4 and 1.6 of Asserted Claim 1 of the '966

1 Patent were actually *disclosed* by Squeezebox versus whether his opinion is that claim limitations  
2 1.4 and 1.6 of Asserted Claim 1 of the '966 Patent were only *rendered obvious* by Squeezebox.  
3 And along similar lines, Dr. Schonfeld never articulates what he considers to be the claimed  
4 functions of “i) causing creation of the first zone scene, ii) causing an indication of the first zone  
5 scene to be transmitted to the first zone player, and iii) causing storage of the first zone scene” in  
6 Sonos’s 2005 system. For these reasons, I disagree that Dr. Schonfeld’s barebones discussion of  
7 claim limitations 1.4 and 1.6 of Asserted Claim 1 of the '966 Patent amounts to a detailed and  
8 complete statement of all opinions to be expressed and the basis and reasons therefor, which I  
9 understand to be the governing standard for expert reports, and that barebones discussion has  
10 prejudiced my ability to fully discern, assess, and respond to his opinions regarding claim  
11 limitations 1.4 and 1.6 of Asserted Claim 1 of the '966 Patent.<sup>39</sup>

12 992. With that said, as I have discussed above in Section XV.B.1.ii as well as in my '885  
13 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld’s analysis of  
14 Squeezebox in the context of Asserted Claim 1 of the '885 Patent suffers from a number of flaws,  
15 many of which are applicable to claim limitations 1.4 and 1.6 of Asserted Claim 1 of the '966  
16 Patent as well – including that his analysis is premised on both an incorrect interpretation of what  
17 is required to qualify as a “zone scene” and an inaccurate and misleading characterization of  
18 Squeezebox functionality and the evidence related thereto.

19 993. For instance, in his section discussing Squeezebox and claim limitation 1.6 of  
20 Asserted Claim 1 of the '885 Patent, Dr. Schonfeld relies exclusively on the functionality in  
21 Squeezebox for forming ad-hoc “sync groups,” which are not the claimed “zone scenes” for all of  
22 the reasons I have previously explained.

23 994. Further, although not entirely clear, Dr. Schonfeld appears to be mapping the “first  
24 indication that the first zone player has been added to a first zone scene” required by limitation 1.6  
25 of the '885 Patent to a “gfrd” message that is sent from the computer installed with the SlimServer  
26 software to a Squeezebox player when a “sync group” that includes the Squeezebox player is

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27 <sup>39</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

1 created. *See* Schonfeld Op. Report at ¶¶ 105, 510, 544-554.

2 995. In particular, when a user created a “sync group” using an infrared remote control  
3 or a web-based UI of the SlimServer software, the computer installed with the SlimServer software  
4 was programmed to send a series of “grfd” messages to at least one Squeezebox player in the “sync  
5 group” that contain raw display bits (sometimes referred to as “bitmaps”) for the Squeezebox  
6 player’s graphical display, and this series of “grfd” messages would have caused the Squeezebox  
7 player’s graphical display to have the appearance that a “Synchronize” settings screen showing a  
8 text string of “PRESS RIGHT TO SYNC WITH” would shift off of the left of the screen and be  
9 replaced by an updated “Synchronize” settings screen showing a text string of “PRESS RIGHT  
10 TO UNSYNC WITH.” *See* Schonfeld Op. Report at ¶¶ 510, 544-554; *see also id.* at ¶¶ 622, 630-  
11 640; Slim/Buttons/Synchronize.pm; Slim/Display/VFD/Animation.pm;  
12 Slim/Player/SqueezeboxG.pm.

13 996. Dr. Schonfeld appears to be opining that the last of these “grfd” messages  
14 containing the raw display bits for the updated “Synchronize” settings screen that includes the text  
15 string of “PRESS RIGHT TO UNSYNC WITH” amounts to “a first indication that the  
16 [Squeezebox player] has been added to a first zone scene,” *See* Schonfeld Op. Report at ¶¶ 105,  
17 510, 544-554. However, as I previously explained in my ’885 Rebuttal Report regarding Asserted  
18 Claim 1 of the ’885 Patent, I disagree that the “grfd” message identified by Dr. Schonfeld is “a  
19 first indication that [the Squeezbox player] has been added to a first zone scene,” as required by  
20 limitation 1.6 of the ’885 Patent. And for similar reasons to those explained in my ’885 Rebuttal  
21 Report regarding Asserted Claim 1 of the ’885 Patent, I disagree that the “grfd” message identified  
22 by Dr. Schonfeld is an “indication” of a “first zone scene,” as required by limitation 1.6 of Asserted  
23 Claim 1 of the ’966 Patent.

24 997. As an initial matter, because a “sync group” is not a “zone scene” for all of the  
25 reasons explained above, any “grfd” message sent from a computer installed with the SlimServer  
26 software to a Squeezebox player as a result of a user creating a “sync group” could not possibly  
27 amount to an “indication” of a “first zone scene.”

28 998. Moreover, even setting aside the fundamental differences between a “sync group”

1 and a “zone scene,” I disagree that the “grfd” message identified by Dr. Schonfeld constitutes an  
2 “indication” of a first “sync group.” As explained above, such a “grfd” message would have  
3 merely contained raw display bits for a “Synchronize” settings screen that includes a text string of  
4 “PRESS RIGHT TO UNSYNC WITH,” which the Squeezebox player would have then used to  
5 change the appearance of its graphical display. However, these raw display bits would have had  
6 no meaning to the Squeezebox player, nor would the Squeezebox have attempted to interpret the  
7 raw display bits in any way – it would have simply used them to populate its graphical display.  
8 As such, a POSITA would not consider these raw display bits for a “Synchronize” settings screen  
9 that shows a text string of “PRESS RIGHT TO UNSYNC WITH” to be an “indication” of a first  
10 “sync group.”

11 999. Dr. Schonfeld’s assertion to the contrary appears to be based on an incorrect  
12 interpretation of what is required to constitute an “indication” of a “zone scene.” In particular, Dr.  
13 Schonfeld points to the Court’s finding that an “indication” of a “zone scene” need not identify the  
14 other “zone player(s)” within the “zone scene” – which is true – but he then jumps to the conclusion  
15 that *any* message sent to a “zone player” at the time that a “zone scene” is created would constitute  
16 an “indication” of the “zone scene” regardless of the contents of that message. In my opinion, this  
17 is not how a POSITA would interpret the phrase “indication” of a “zone scene” in view of the  
18 Court’s July 21, 2022 order. Rather, a POSITA would understand that, in order for a message to  
19 constitute an “indication” of a “zone scene,” the message must contain some information about the  
20 “zone scene” that enables the Squeezebox player to recognize that it has been added to the “zone  
21 scene,” such as an identifier of the “zone scene.” A message containing raw display bits for a  
22 “Synchronize” settings screen that shows a text string of “PRESS RIGHT TO UNSYNC WITH”  
23 does not meet this requirement.

24 1000. When discussing his opinion that Squeezebox discloses the “first indication that the  
25 first zone player has been added to a first zone scene” required by limitation 1.6 of the ’885 Patent,  
26 Dr. Schonfeld also states as follows:

27 In my testing of the Logitech prior art system using a single SlimServer, I was able  
28 to setup a synchronization group (zone scene), and later invoke it. As shown below,  
I setup a first Squeezebox player (“Player1”) which was playing the song “Don’t



1 Tempt Me,” and also had a second Squeezebox player (“Player3”) which was  
2 turned off. I then synchronized Player1 (playing “Don’t Tempt Me”) with Player 3  
3 (which was off)—Player1 switched to playing nothing while Player3 remained off  
4 (Step 1 as shown below). In other words, Player 1 received an indication to join a  
5 group, and joined the group. This matches the Court’s Order, which provided that  
6 a user can create a zone scene with a name (here, including the identity of the  
7 players) and later play to speakers within that zone scene or invoke the zone scene  
8 itself.

9 *See* Schonfeld Op. Report at ¶ 515; *see also id.* at ¶¶ 516-517. Notably, Dr. Schonfeld fails to  
10 identify any particular message that constitutes the claimed “indication” in this scenario, but in  
11 any event, I disagree that this functionality involves the transmission of an “indication” of a “zone  
12 scene” for at least the reasons that (i) an ad-hoc “sync group” is not a “zone scene” for the reasons  
13 explained above and (ii) in this scenario, the computer installed with the SlimSever software to  
14 Player1 would have merely instructed Player1 to change its playback operation and would not  
15 have transmitted any “indication” of a “sync group” to Player1, which would have had no  
16 awareness that it had been added to a “sync group.”

17 1001. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that a computer  
18 installed with the SlimServer software in a Squeezebox system did not have the functional  
19 capability required by limitations 1.4 / 1.6 of Asserted Claim 1 of the ’966 Patent.

20 **v. Squeezebox Did Not Meet Limitations 1.4 / 1.7**

21 1002. When read together, limitations 1.4 and 1.7 of Asserted Claim 1 of the ’966 Patent  
22 require the “computing device” to be encoded with executable “program instructions” that cause  
23 the computing device to perform the following function(s):

24 **[1.4]** while serving as a controller for a networked media playback system comprising a  
25 first zone player and at least two other zone players, wherein the first zone player is  
26 operating in a standalone mode in which the first zone player is configured to play back  
27 media individually:

28 ...

**[1.7]** receiving a second request to create a second zone scene comprising a  
second predefined grouping of zone players including at least the first zone player  
and a third zone player that are to be configured for synchronous playback of media  
when the second zone scene is invoked, wherein the third zone player is different  
than the second zone player;



1 1003. In my opinion, Squeezebox did not meet this requirement.

2 1004. As explained above, the evidence I have reviewed establishes that a computer  
3 installed with the SlimServer software in a Squeezebox system was only capable of receiving  
4 requests to form ad-hoc “sync groups,” which are not the claimed “zone scenes” for the reasons  
5 explained above. Thus, for this reason, a computer installed with the SlimServer software did not  
6 have the required functional capability to “receiv[e] *a second request to create a second zone scene*  
7 comprising a second predefined grouping of [Squeezebox players] including at least the first  
8 [Squeezebox player] and a third [Squeezebox player] that are to be configured for synchronous  
9 playback of media when the second zone scene is invoked.”

10 1005. Further, claim limitations 1.4 and 1.7 require the “computing device” to “receiv[e]  
11 [the] second request to create [the] second zone scene” at a time when the “first zone player” is  
12 “operating in a standalone mode,” which means that the created “first zone scene” must be in an  
13 inactive state at the time that this functionality is carried out (otherwise, the “first zone player”  
14 could not be in “standalone mode”). However, in Squeezebox, it was not possible for an ad-hoc  
15 “sync group” to exist in an inactive state in which the members of the “sync group” could be used  
16 for individual playback while the “sync group” remained available for selection by a user; rather,  
17 an ad-hoc “sync group” only remained in existence for the temporary period of time during which  
18 it was activated, and once deactivated, the “sync group” would cease to exist.

19 1006. Despite this clear evidence establishing that a computer installed with the  
20 SlimServer software did not have any “zone scenes” capability, Dr. Schonfeld nevertheless opines  
21 that claim limitations 1.4 and 1.7 of Asserted Claim 1 of the ’966 Patent were either disclosed or  
22 rendered obvious by Squeezebox. *See* Schonfeld Op. Report at ¶¶ 1005, 1008. However, I find  
23 Dr. Schonfeld’s opinions regarding Squeezebox and claim limitations 1.4 and 1.7 of Asserted  
24 Claim 1 of the ’966 Patent to be flawed for several reasons.

25 1007. As an initial matter, the entirety of Dr. Schonfeld’s discussion regarding  
26 Squeezebox and claim limitations 1.4 and 1.7 of Asserted Claim 1 of the ’966 Patent is shown in  
27 the screenshots below from Dr. Schonfeld’s Opening Report:  
28

(v) *Limitation 1.4 "while serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players, wherein the first zone player is operating in a standalone mode in which the first zone player is configured to play back media individually:"*

1005. *See supra* '885 claim 1, "network device" disclosure in, e.g., 1.6, 1.7, 1.9, "network interface" disclosure in, e.g., 1.1., "zone player" disclosure in e.g., preamble, 1.1, 1.4-1.7, 1.9-1.10, "standalone mode" disclosure in e.g., 1.5, 1.8, 1.10.

(viii) *Limitation 1.7 receiving a second request to create a second zone scene comprising a second predefined grouping of zone players including at least the first zone player and a third zone player that are to be configured for synchronous playback of media when the second zone scene is invoked, wherein the third zone player is different than the second zone player;*

1008. *See supra* '885 claim 1, Limitation 1.6, 1.7.

1008. As these screenshots demonstrate, Dr. Schonfeld is relying exclusively on his prior discussion of Squeezebox in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a "zone player"), claim limitations 1.4 and 1.7 of Asserted Claim 1 of the '966 Patent use different claim language than the limitations of Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion of Squeezebox in the context of the claim limitations of Asserted Claim 1 of the '885 Patent applies to claim limitations 1.4 and 1.7 of Asserted Claim 1 of the '966 Patent. In fact, Dr. Schonfeld fails to even state whether his opinion is that claim limitations 1.4 and 1.7 of Asserted Claim 1 of the '966 Patent were actually *disclosed* by Squeezebox versus whether his opinion is that claim limitations 1.4 and 1.7 of Asserted Claim 1 of the '966 Patent were only *rendered obvious* by Squeezebox. And along similar lines, Dr. Schonfeld never once articulates what he considers to be the claimed "second request to create a second zone scene" in Squeezebox. For these reasons, I disagree that

Dr. Schonfeld's barebones discussion of claim limitations 1.4 and 1.7 of Asserted Claim 1 of the '966 Patent amounts to a detailed and complete statement of all opinions to be expressed and the basis and reasons therefor, which I understand to be the governing standard for expert reports, and that barebones discussion has prejudiced my ability to fully discern, assess, and respond to his opinions regarding claim limitations 1.4 and 1.7 of Asserted Claim 1 of the '966 Patent.<sup>40</sup>

1009. With that said, as I have discussed above in Section XV.B.1.ii as well as in my '885 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's analysis of Squeezebox in the context of Asserted Claim 1 of the '885 Patent suffers from a number of flaws, many of which are applicable to claim limitations 1.4 and 1.7 of Asserted Claim 1 of the '966 Patent as well – including that his analysis is premised on both an incorrect interpretation of what is required to qualify as a “zone scene” and an inaccurate and misleading characterization of Squeezebox functionality and the evidence related thereto.

1010. Thus, nothing in Dr. Schonfeld's Opening Report alters my opinion that a computer installed with the SlimServer software in a Squeezebox system did not have the functional capability required by limitations 1.4 / 1.7 of Asserted Claim 1 of the '966 Patent.

**vi. Squeezebox Did Not Meet Limitations 1.4 / 1.8**

1011. When read together, limitations 1.4 and 1.8 of Asserted Claim 1 of the '966 Patent require the “computing device” to be encoded with executable “program instructions” that cause the computing device to perform the following function(s):

**[1.4]** while serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players, wherein the first zone player is operating in a standalone mode in which the first zone player is configured to play back media individually:

...

**[1.8]** based on the second request, i) causing creation of the second zone scene, ii) causing an indication of the second zone scene to be transmitted to the first zone player, and iii) causing storage of the second zone scene;

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<sup>40</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies in his Opening Report, I expressly reserve my right to respond.

1 1012. In my opinion, Squeezebox did not meet this requirement.

2 1013. As explained above, the evidence I have reviewed establishes that a computer  
3 installed with the SlimServer software in a Squeezebox system only had functional capability for  
4 forming ad-hoc “sync groups,” which are not the claimed “zone scenes” for the reasons explained  
5 above. Thus, for this reason, a computer installed with the SlimServer software did not have the  
6 required functional capability to “i) caus[e] creation of the second zone scene, ii) caus[e] an  
7 indication of the first zone scene to be transmitted to the first [Squeezebox player], and iii) caus[e]  
8 storage of the second zone scene.”

9 1014. Further, claim limitations 1.4 and 1.8 require the “computing device” to carry out  
10 the claimed actions with respect to a “second zone scene” at a time when the “first zone player” is  
11 “operating in a standalone mode,” which means that the created “first zone scene” must be in an  
12 inactive state at the time that this functionality is carried out (otherwise, the “first zone player”  
13 could not be in “standalone mode”). However, in Squeezebox, it was not possible for an ad-hoc  
14 “sync group” to exist in an inactive state in which the members of the “sync group” could be used  
15 for individual playback while the “sync group” remained available for selection by a user; rather,  
16 an ad-hoc “sync group” only remained in existence for the temporary period of time during which  
17 it was activated, and once deactivated, the “sync group” would cease to exist.

18 1015. Further yet, in the context of the surrounding claim language, a POSITA would  
19 understand that claim limitations 1.4 and 1.8 require the “computing device” to carry out the  
20 claimed actions with respect to a “second zone scene” that includes at least one common “zone  
21 player” with the “first zone scene” (i.e., the claimed “first zone player”) but without modifying or  
22 destroying the “first zone scene” that was created, such that the overlapping “first zone scene” and  
23 “second zone scene” can thereafter both be “display[ed]” to a user for selection. However, in  
24 Squeezebox, it was not possible to create a new ad-hoc “sync group” comprising a Squeezebox  
25 player that was already a member of another preexisting “sync group” without first modifying or  
26 destroying that preexisting “sync group.” For this additional reason, a computer installed with the  
27 SlimServer software did not have the required functional capability to “i) caus[e] creation of the  
28 second zone scene, ii) caus[e] an indication of the first zone scene to be transmitted to the first

[Squeezebox player], and iii) caus[e] storage of the second zone scene,” where the “second zone scene” includes at least one common “zone player” with the created “first zone scene.”

1016. Despite this clear evidence establishing that a computer installed with the SlimServer software did not have any “zone scenes” capability, Dr. Schonfeld nevertheless opines that claim limitations 1.4 and 1.8 of Asserted Claim 1 of the ’966 Patent were either disclosed or rendered obvious by Squeezebox. *See* Schonfeld Op. Report at ¶¶ 1005, 1009. However, I find Dr. Schonfeld’s opinions regarding Squeezebox and claim limitations 1.4 and 1.8 of Asserted Claim 1 of the ’966 Patent to be flawed for several reasons.

1017. As an initial matter, the entirety of Dr. Schonfeld’s discussion regarding Squeezebox and claim limitations 1.4 and 1.8 of Asserted Claim 1 of the ’966 Patent is shown in the screenshots below from Dr. Schonfeld’s Opening Report:

(v) *Limitation 1.4 “while serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players, wherein the first zone player is operating in a standalone mode in which the first zone player is configured to play back media individually:”*

1005. *See supra* ‘885 claim 1, “network device” disclosure in, e.g., 1.6, 1.7, 1.9, “network interface” disclosure in, e.g., 1.1., “zone player” disclosure in e.g., preamble, 1.1, 1.4-1.7, 1.9-1.10, “standalone mode” disclosure in e.g., 1.5, 1.8, 1.10.

(ix) *Limitation 1.8 based on the second request, i) causing creation of the second zone scene, ii) causing an indication of the second zone scene to be transmitted to the first zone player, and iii) causing storage of the second zone scene;*

1009. *See supra* ‘885 claim 1, Limitation 1.6, 1.7.

1018. As these screenshots demonstrate, Dr. Schonfeld is relying exclusively on his prior discussion of Squeezebox in the context of certain claim limitations of the ’885 Patent. However, the Asserted Claims of the ’966 Patent are directed to a different type of device than Asserted Claim 1 of the ’885 Patent (a “computing device” configured to “serv[e] as a controller” as opposed to a “zone player”), claim limitations 1.4 and 1.8 of Asserted Claim 1 of the ’966 Patent use

1 different claim language than the limitations of Asserted Claim 1 of the '885 Patent, and Dr.  
2 Schonfeld fails to provide any further explanation as to how his prior discussion of Squeezebox in  
3 the context of the claim limitations of Asserted Claim 1 of the '885 Patent applies to claim  
4 limitations 1.4 and 1.8 of Asserted Claim 1 of the '966 Patent. In fact, Dr. Schonfeld fails to even  
5 state whether his opinion is that claim limitations 1.4 and 1.8 of Asserted Claim 1 of the '966  
6 Patent were actually *disclosed* by Squeezebox versus whether his opinion is that claim limitations  
7 1.4 and 1.8 of Asserted Claim 1 of the '966 Patent were only *rendered obvious* by Squeezebox.  
8 And along similar lines, Dr. Schonfeld never articulates what he considers to be the claimed  
9 functions of “i) causing creation of the second zone scene, ii) causing an indication of the second  
10 zone scene to be transmitted to the first zone player, and iii) causing storage of the second zone  
11 scene” in Squeezebox. For these reasons, I disagree that Dr. Schonfeld’s barebones discussion of  
12 claim limitations 1.4 and 1.8 of Asserted Claim 1 of the '966 Patent amounts to a detailed and  
13 complete statement of all opinions to be expressed and the basis and reasons therefor, which I  
14 understand to be the governing standard for expert reports, and that barebones discussion has  
15 prejudiced my ability to fully discern, assess, and respond to his opinions regarding claim  
16 limitations 1.4 and 1.8 of Asserted Claim 1 of the '966 Patent.<sup>41</sup>

17 1019. With that said, as I have discussed above in Section XV.B.1.ii as well as in my '885  
18 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld’s analysis of  
19 Squeezebox in the context of Asserted Claim 1 of the '885 Patent suffers from a number of flaws,  
20 many of which are applicable to claim limitations 1.4 and 1.8 of Asserted Claim 1 of the '966  
21 Patent as well – including that his analysis is premised on both an incorrect interpretation of what  
22 is required to qualify as a “zone scene” and an inaccurate and misleading characterization of  
23 Squeezebox functionality and the evidence related thereto.

24 1020. For instance, in his section discussing Squeezebox and claim limitations 1.6-1.7 of  
25 Asserted Claim 1 of the '885 Patent, Dr. Schonfeld relies exclusively on the functionality in  
26 Squeezebox for forming ad-hoc “sync groups,” which are not the claimed “zone scenes” for all of

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27 <sup>41</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.



1 the reasons I have previously explained.

2 1021. Further, although not entirely clear, when discussing the “second indication that  
3 the first zone player has been added to a second zone scene” required by limitation 1.7 of the ’885  
4 Patent, Dr. Schonfeld appears to opine that this requirement is met by Squeezebox based on a  
5 theory that (i) “a single player may be defined in separate sync groups on different SlimServer  
6 configurations,” and (ii) after a user would have connected a Squeezebox player to a second  
7 SlimServer instance and then created a “sync group” at the second SlimServer instance that  
8 included the Squeezebox player, the Squeezebox player would have received a “grfd” message  
9 encoding an “UNSYNCH\_WITH” text string from the second SlimServer instance, which  
10 amounts to “a second indication that the [Squeezebox player] has been added to a second zone  
11 scene . . .” *See* Schonfeld Op. Report at ¶¶ 571-573, *see also id.* at ¶¶ 641-672, 739. However, as  
12 I previously explained in my ’885 Rebuttal Report regarding Asserted Claim 1 of the ’885 Patent,  
13 I disagree that the “grfd” message identified by Dr. Schonfeld is “a second indication that [the  
14 Squeezbox player] has been added to a second zone scene,” as required by limitation 1.7 of the  
15 ’885 Patent. And for similar reasons to those explained in my ’885 Rebuttal Report regarding  
16 Asserted Claim 1 of the ’885 Patent, I disagree that the “grfd” message identified by Dr. Schonfeld  
17 is an “indication” of a “second zone scene,” as required by limitation 1.8 of Asserted Claim 1 of  
18 the ’966 Patent.

19 1022. As an initial matter, because a “sync group” is not a “zone scene” for all of the  
20 reasons explained above, any “grfd” message sent from a second SlimServer instance to a  
21 Squeezebox player as a result of a user creating a “sync group” at the second SlimServer instance  
22 could not possibly amount to an “indication” of a “second zone scene.”

23 1023. Moreover, even setting aside the other fundamental differences between a “sync  
24 group” and a “zone scene,” this theory is flawed for several other reasons as well.

25 1024. First, I disagree that using two independent SlimServer instances to create two  
26 different “sync groups” involves the transmission of an “indication” of a second “sync group”  
27 comprising a Squeezebox player that is a member of the second “sync group” while that same  
28 Squeezebox player remains a member of a first “sync group” that is still in existence such that the



1 overlapping first “sync group” and second “sync group” can thereafter both be “display[ed]” to a  
2 user for selection. That is because a Squeezebox player in such a hypothetical scenario could only  
3 be connected to one SlimServer instance at any given time, and once the Squeezebox player is  
4 disconnected from the first SlimServer instance, a POSITA would no longer consider the  
5 Squeezebox player to be a member of the first “sync group” that was previously created at the first  
6 SlimServer instance. To the contrary, a POSITA would understand that when the Squeezebox  
7 player was hypothetically disconnected from the first SlimServer instance and connected to the  
8 second SlimServer instance, this would have formed an entirely different system in which the first  
9 “sync group” does not exist and is certainly not available to be “display[ed]” to a user for selection  
10 along with the second “sync group.”

11 1025. Second, I disagree that the “grfd” message identified by Dr. Schonfeld constitutes  
12 an “indication” of a second “sync group.” As explained above, such a “grfd” message would not  
13 have contained any information about the second “sync group”; instead, such a “grfd” message  
14 would have merely contained raw display bits corresponding to a text string of  
15 “UNSYNCH\_WITH,” which the Squeezebox player would have then used to change its graphical  
16 display for the “Synchronize” settings menu option. However, these raw display bits would have  
17 had no meaning to the Squeezebox player, nor would the Squeezebox have attempted to interpret  
18 the raw display bits – it would have simply used them to populate its graphical display. As such,  
19 a POSITA would not consider these raw display bits for the “UNSYNCH\_WITH” text string to  
20 be an “indication” of a second “sync group.”

21 1026. Third, in Dr. Schonfeld’s hypothetical scenario, the first “grfd” message identified  
22 by Dr. Schonfeld for the first “sync group” would be received from a first SlimServer instance for  
23 a first Squeezebox system and the second “grfd” message identified by Dr. Schonfeld for the  
24 second “sync group” would be received from a second SlimServer instance for a second  
25 Squeezebox system that is distinctly different from the first Squeezebox system. *See* Schonfeld  
26 Op. Report at ¶ 595. However, Asserted Claim 1 of the ’966 Patent requires the claimed  
27 “computing device” to cause the “indication” of the “first zone scene” and the “indication” of the  
28 “second zone scene” to be transmitted while “serving as a controller” of the *same* “networked

media playback system,” which is yet another reason that Squeezebox does not teach limitation 1.8 of Asserted Claim 1 of the '966 Patent under Dr. Schonfeld's theory.

1027. Fourth, Dr. Schonfeld fails to present any evidence that the hypothetical setup he describes where a user installed and used two different SlimServer instances on the same “computing device” to create two different “sync groups” including overlapping Squeezebox players was ever actually implemented – let alone implemented at a time that would qualify it as prior art to the '966 Patent.

1028. Fifth, Dr. Schonfeld's multiple SlimServer theory is also premised on a number of statements that are unclear, unsupported, and/or otherwise fail to provide support for Dr. Schonfeld's opinion that a Squeezebox player had the functional capability required by Asserted Claim 1 of the '966 Patent.

1029. Thus, nothing in Dr. Schonfeld's Opening Report alters my opinion that a computer installed with the SlimServer software in a Squeezebox system did not have the functional capability required by limitations 1.4 / 1.8 of Asserted Claim 1 of the '966 Patent.

**vii. Squeezebox Did Not Meet Limitations 1.4 / 1.9**

1030. When read together, limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent require the “computing device” to be encoded with executable “program instructions” that cause the computing device to perform the following function(s):

[1.4] while serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players, wherein the first zone player is operating in a standalone mode in which the first zone player is configured to play back media individually:

...

[1.9] displaying a representation of the first zone scene and a representation of the second zone scene; and;

1031. In my opinion, Squeezebox did not meet this requirement.

1032. As explained above, the evidence I have reviewed establishes that Squeezebox only provided users with the ability to form and use ad-hoc “sync groups,” which are not the claimed “zone scenes” for the reasons explained above. Thus, for this reason, a computer installed with

1 the SlimServer software in a Squeezebox system did not have any functional capability for  
2 “displaying a representation” of a “zone scene” – let alone the required functional capability for  
3 “displaying a representation of the first zone scene and a representation of the second zone scene”  
4 in a manner that allows a user to select between them for purposes of requesting invocation.

5 1033. Further, as explained above, the “first zone scene” and the “second zone scene”  
6 for which the “representation[s]” are “display[ed]” are required to overlap with one another by  
7 including at least one common “zone player” (i.e., the claimed “first zone player”). However, in  
8 Squeezebox, it was not possible for two ad-hoc “sync groups” to overlap with one another; rather,  
9 each Squeezebox player could only be a member of a single “sync group” at any given time. Thus,  
10 for this additional reason, a computer installed with the SlimServer software did not have the  
11 required functional capability to “display[] a representation of the first zone scene and a  
12 representation of the second zone scene.”

13 1034. Further yet, claim limitations 1.4 and 1.9 require the “computing device” to  
14 “display[] a representation of the first zone scene and a representation of the second zone scene”  
15 at a time when the “first zone player” is “operating in a standalone mode,” which means that the  
16 “first zone scene” and the “second zone scene” both must be in an inactive state at the time that  
17 the “representation[s]” are “display[ed]” (otherwise, the “first zone player” could not be in  
18 “standalone mode”). However, in Squeezebox, it was not possible for an ad-hoc “sync group” to  
19 exist in an inactive state in which the members of the “sync group” could be used for individual  
20 playback while the “sync group” remained available for selection by a user; rather, an ad-hoc “sync  
21 group” only remained in existence for the temporary period of time during which it was activated,  
22 and once deactivated, the “sync group” would cease to exist.

23 1035. Despite this clear evidence establishing that a computer installed with the  
24 SlimServer software did not have any “zone scenes” capability, Dr. Schonfeld nevertheless opines  
25 that claim limitations 1.4 and 1.9 of Asserted Claim 1 of the ’966 Patent were either disclosed or  
26 rendered obvious by Squeezebox. *See* Schonfeld Op. Report at ¶¶ 1005, 1010. However, I find  
27 Dr. Schonfeld’s opinions regarding Squeezebox and claim limitations 1.4 and 1.9 of Asserted  
28 Claim 1 of the ’966 Patent to be flawed for several reasons.

1036. As an initial matter, the entirety of Dr. Schonfeld's discussion regarding Squeezebox and claim limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent is shown in the screenshots below from Dr. Schonfeld's Opening Report:

(v) *Limitation 1.4 "while serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players, wherein the first zone player is operating in a standalone mode in which the first zone player is configured to play back media individually:"*

1005. *See supra* '885 claim 1, "network device" disclosure in, e.g., 1.6, 1.7, 1.9, "network interface" disclosure in, e.g., 1.1., "zone player" disclosure in e.g., preamble, 1.1, 1.4-1.7, 1.9-1.10, "standalone mode" disclosure in e.g., 1.5, 1.8, 1.10.

(x) *Limitation 1.9 displaying a representation of the first zone scene and a representation of the second zone scene; and*

1010. *See supra* '885 claim 1, Limitations 1.6 and 1.7.

1037. As these screenshots demonstrate, Dr. Schonfeld is relying exclusively on his prior discussion of Squeezebox in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a "zone player"), claim limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent use different claim language than the limitations of Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion of Squeezebox in the context of the claim limitations of Asserted Claim 1 of the '885 Patent applies to claim limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent. In fact, Dr. Schonfeld fails to even state whether his opinion is that claim limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent were actually *disclosed* by Squeezebox versus whether his opinion is that claim limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent were only *rendered obvious* by Squeezebox. And along similar lines, Dr. Schonfeld never articulates what he considers to be the displayed "representation of the first zone scene" or the displayed "representation of the second zone scene"

1 in Squeezebox. For these reasons, I disagree that Dr. Schonfeld's barebones discussion of claim  
2 limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent amounts to a detailed and complete  
3 statement of all opinions to be expressed and the basis and reasons therefor, which I understand to  
4 be the governing standard for expert reports, and that barebones discussion has prejudiced my  
5 ability to fully discern, assess, and respond to his opinions regarding claim limitations 1.4 and 1.9  
6 of Asserted Claim 1 of the '966 Patent.<sup>42</sup>

7 1038. With that said, as I have discussed above in Section XV.B.1.ii as well as in my '885  
8 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's analysis of  
9 Squeezebox in the context of Asserted Claim 1 of the '885 Patent suffers from a number of flaws,  
10 many of which are applicable to claim limitations 1.4 and 1.9 of Asserted Claim 1 of the '966  
11 Patent as well – including that his analysis is premised on both an incorrect interpretation of what  
12 is required to qualify as a “zone scene” and an inaccurate and misleading characterization of  
13 Squeezebox functionality and the evidence related thereto.

14 1039. For instance, in his section discussing Squeezebox and claim limitations 1.6-1.7 of  
15 Asserted Claim 1 of the '885 Patent, Dr. Schonfeld relies exclusively on the functionality in  
16 Squeezebox for forming ad-hoc “sync groups,” which are not the claimed “zone scenes” for all of  
17 the reasons I have previously explained.

18 1040. Further, even setting aside the other fundamental differences between a “sync  
19 group” and a “zone scene,” Dr. Schonfeld fails to identify any scenario where a computer installed  
20 with SlimServer software would have been capable of displaying representations of two different  
21 “sync groups” having a common member in a manner that allows a user to select between the two  
22 “sync groups” for purposes of requesting invocation. Indeed, even under Dr. Schonfeld's theory  
23 that having two overlapping “sync groups” defined by two independent SlimServer instances  
24 amounts to having two overlapping “zone scenes” (which is flawed for all of the reasons I  
25 explained above), it would not have been possible for the computer installed with the two  
26 independent SlimServer instances to display representations of both “sync groups” in a manner

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27 <sup>42</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

1 that allowed a user to select between them for purposes of requesting invocation. Rather, in such  
2 a hypothetical scenario, the Squeezebox players could only be connected to one SlimServer  
3 instance at any given time – as confirmed by Dr. Schonfeld’s own description – and thus, only one  
4 of the two different, overlapping “sync groups” could be displayed for selection at any given time.

5 1041. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that a computer  
6 installed with the SlimServer software in a Squeezebox system did not have the functional  
7 capability required by limitations 1.4 / 1.9 of Asserted Claim 1 of the ’966 Patent.

8 **viii. Squeezebox Did Not Meet Limitations 1.4 / 1.10**

9 1042. When read together, limitations 1.4 and 1.10 of Asserted Claim 1 of the ’966 Patent  
10 require the “computing device” to be encoded with executable “program instructions” that cause  
11 the computing device to perform the following function(s):

12 [1.4] while serving as a controller for a networked media playback system comprising a  
13 first zone player and at least two other zone players, wherein the first zone player is  
14 operating in a standalone mode in which the first zone player is configured to play back  
media individually:

15 ...

16 [1.10] while displaying the representation of the first zone scene and the  
17 representation of the second zone scene, receiving a third request to invoke the first  
zone scene; and

18 1043. In my opinion, Squeezebox did not meet this requirement.

19 1044. As explained above, the evidence I have reviewed establishes that Squeezebox only  
20 provided users with the ability to form and use ad-hoc “sync groups,” which are not the claimed  
21 “zone scenes” for the reasons explained above. Thus, for this reason, a computer installed with  
22 the SlimServer software in a Squeezebox system did not have the required functional capability  
23 for either “displaying a representation” of a “zone scene” or receiving a “request to invoke” a  
24 “zone scene” – let alone the required functional capability for “while displaying the representation  
25 of the first zone scene and the representation of the second zone scene, receiving a third request to  
26 invoke the first zone scene.”

27 1045. Further, as explained above, the “first zone scene” and the “second zone scene” for  
28

1 which the “representation[s]” are “display[ed]” are required to overlap with one another by  
2 including at least one common “zone player” (i.e., the claimed “first zone player”). However, in  
3 Squeezebox, it was not possible for two ad-hoc “sync groups” in a Squeezebox system to overlap  
4 with one another; rather, each Squeezebox player in a Squeezebox system could only be a member  
5 of a single “sync group” at any given time. Thus, for this additional reason, a computer installed  
6 with the SlimServer software did not have the required functional capability to “while displaying  
7 the representation of the first zone scene and the representation of the second zone scene, receiving  
8 a third request to invoke the first zone scene.”

9 1046. Further yet, claim limitations 1.4 and 1.10 require the “computing device” to be  
10 “displaying the representation of the first zone scene and the representation of the second zone  
11 scene” and to “receiv[e] a third request to invoke the first zone scene” at a time when the “first  
12 zone player” is “operating in a standalone mode,” which means that the “first zone scene” and the  
13 “second zone scene” both must be in an inactive state at the time that this functionality is carried  
14 out (otherwise, the “first zone player” could not be in “standalone mode”). However, in  
15 Squeezebox, it was not possible for an ad-hoc “sync group” to exist in an inactive state in which  
16 the members of the “sync group” could be used for individual playback while the “sync group”  
17 remained available for selection by a user; rather, an ad-hoc “sync group” only remained in  
18 existence for the temporary period of time during which it was activated, and once deactivated, the  
19 “sync group” would cease to exist.

20 1047. Still further, in the context of the surrounding claim language, a POSITA would  
21 understand that claim limitations 1.4 and 1.10 require the “computing device” to receive the  
22 “request to invoke the first zone scene” at some point in time that is later than when it received the  
23 “request to create [the] first zone scene” and the “first zone scene” was created based on that  
24 “request.” Indeed, at a minimum, there must be a time gap between the time when the “computing  
25 device” received the “request to create [the] first zone scene” and the time when the “computing  
26 device” received the “request to invoke the first zone scene” that is long enough to allow (i) the  
27 “first zone scene” to be created, (ii) the “computing device” to display “representation[s]” of the  
28 “first zone scene” as well as the “second zone scene,” and (iii) a user to view the displayed



1 “representation[s]” of the “first zone scene” and “second zone scene” and then input the “request  
2 to invoke the first zone scene.” However, in Squeezebox, a computer installed with the SlimServer  
3 software would have only received a single request that served to both create and invoke a “sync  
4 group” – it would have never received an initial “request to create” a “sync group” followed by  
5 some later, separate “request to invoke” the “sync group.” This is because an ad-hoc “sync group”  
6 was automatically invoked at the time of its creation and then only remained in existence for the  
7 temporary period of time during which it was in an active state, after which time the “sync group”  
8 would cease to exist. Thus, in Squeezebox, there would have never been a period of time during  
9 which a “sync group” was created and in existence but was in an inactive, uninvoked state such  
10 that a user was presented with an option to “request to invoke” the “sync group.”

11 1048. Despite this clear evidence establishing that a computer installed with the  
12 SlimServer software did not have any “zone scenes” capability, Dr. Schonfeld nevertheless opines  
13 that claim limitations 1.4 and 1.10 of Asserted Claim 1 of the ’966 Patent were either disclosed or  
14 rendered obvious by Squeezebox. *See* Schonfeld Op. Report at ¶¶ 1005, 1011. However, I find  
15 Dr. Schonfeld’s opinions regarding Squeezebox and claim limitations 1.4 and 1.10 of Asserted  
16 Claim 1 of the ’966 Patent to be flawed for several reasons.

17 1049. As an initial matter, the entirety of Dr. Schonfeld’s discussion regarding  
18 Squeezebox and claim limitations 1.4 and 1.10 of Asserted Claim 1 of the ’966 Patent is shown in  
19 the screenshots below from Dr. Schonfeld’s Opening Report:  
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(v) *Limitation 1.4 "while serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players, wherein the first zone player is operating in a standalone mode in which the first zone player is configured to play back media individually:"*

1005. *See supra* '885 claim 1, "network device" disclosure in, e.g., 1.6, 1.7, 1.9, "network interface" disclosure in, e.g., 1.1., "zone player" disclosure in e.g., preamble, 1.1, 1.4-1.7, 1.9-1.10, "standalone mode" disclosure in e.g., 1.5, 1.8, 1.10.

(xi) *Limitation 1.10 while displaying the representation of the first zone scene and the representation of the second zone scene, receiving a third request to invoke the first zone scene; and*

1011. *See supra* '885 claim 1, Limitation 1.9.

1050. As these screenshots demonstrate, Dr. Schonfeld is relying exclusively on his prior discussion of Squeezebox in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a "zone player"), claim limitations 1.4 and 1.10 of Asserted Claim 1 of the '966 Patent use different claim language than the limitations of Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion of Sonos's 2005 system in the context of the claim limitations of Asserted Claim 1 of the '885 Patent applies to claim limitations 1.4 and 1.10 of Asserted Claim 1 of the '966 Patent. In fact, Dr. Schonfeld fails to even state whether his opinion is that claim limitations 1.4 and 1.10 of Asserted Claim 1 of the '966 Patent were actually *disclosed* by Squeezebox versus whether his opinion is that claim limitations 1.4 and 1.10 of Asserted Claim 1 of the '966 Patent were only *rendered obvious* by the Squeezebox. And along similar lines, Dr. Schonfeld never articulates what he considers to be the displayed "representation of the first zone scene," the displayed "representation of the second zone scene," or the "third request to invoke the first zone scene" in Squeezebox. For these reasons, I disagree that Dr. Schonfeld's barebones discussion of claim limitations 1.4 and 1.10 of Asserted

1 Claim 1 of the '966 Patent amounts to a detailed and complete statement of all opinions to be  
2 expressed and the basis and reasons therefor, which I understand to be the governing standard for  
3 expert reports, and that barebones discussion has prejudiced my ability to fully discern, assess, and  
4 respond to his opinions regarding claim limitations 1.4 and 1.10 of Asserted Claim 1 of the '966  
5 Patent.<sup>43</sup>

6 1051. With that said, as I have discussed above in Section XV.B.1.ii as well as in my '885  
7 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's analysis of  
8 Squeezebox in the context of Asserted Claim 1 of the '885 Patent suffers from a number of flaws,  
9 many of which are applicable to claim limitations 1.4 and 1.10 of Asserted Claim 1 of the '966  
10 Patent as well – including that his analysis is premised on both an incorrect interpretation of what  
11 is required to qualify as a “zone scene” and an inaccurate and misleading characterization of  
12 Squeezebox functionality and the evidence related thereto.

13 1052. For instance, in his section discussing Squeezebox and claim limitation 1.9 of  
14 Asserted Claim 1 of the '885 Patent, which requires the claimed “first zone player” to receive an  
15 “instruction to operate in accordance with” a given “zone scene” that has been “selected for  
16 invocation,” Dr. Schonfeld appears to opine that this requirement is met by Squeezebox based on  
17 two different theories, both of which are flawed.

18 1053. Dr. Schonfeld's first theory appears to be that a “zone scene” would have been  
19 “selected for invocation” in a scenario where “a user may select a synchronization group for  
20 playback using the player selector in the upper right corner of the SlimServer” and then use  
21 “playback controls” to initiate playback on a “sync group” such as by “pressing the ‘PLAY’ button  
22 in the Web UI.” *See* Schonfeld Op. Report at ¶¶ 800-804. However, as I previously explained in  
23 my '885 Rebuttal Report, I disagree that Dr. Schonfeld's first theory involves a “zone scene” being  
24 “selected for invocation,” as required by limitation 1.9 of Asserted Claim 1 of the '885 Patent.  
25 And for similar reasons to those explained in my '885 Rebuttal Report, I disagree that Dr.  
26 Schonfeld's first theory involves a “request to invoke” a “zone scene,” as required by limitation

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27 <sup>43</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

1 1.10 of Asserted Claim 1 of the '966 Patent.

2 1054. As an initial matter, because a “sync group” is not a “zone scene” for all of the  
3 reasons explained above, none of the alleged “selections” identified by Dr. Schonfeld meet the  
4 claimed requirement of receiving a “request to invoke” a “zone scene.”

5 1055. Moreover, even setting aside the other fundamental differences between a “sync  
6 group” and a “zone scene,” neither the user action of selecting a previously-created “sync group”  
7 in the “player selector” dropdown of the SlimServer software’s web-based UI nor the user action  
8 of using the “playback controls” for the selected “sync group” amounts to a “request to invoke”  
9 the “sync group.” This is because a “sync group” was automatically invoked at the time of its  
10 creation and then only remained in existence for the temporary period of time during which it was  
11 in an active state, so there would have never been a period of time during which a “sync group”  
12 was created and in existence but was in an inactive, uninvoked state such that a user was presented  
13 with an option to “request to invoke” the “sync group.” Thus, at the time that a “sync group” was  
14 selected in the “player selector” dropdown of the SlimServer software’s web-based UI, such a  
15 “sync group” would have already been “invoked” and thus such a selection was not a “request to  
16 invoke” the “sync group.” Rather, the user would have been selecting an already-invoked “sync  
17 group” for purposes of controlling that already-invoked “sync group,” not “request[ing] to invoke”  
18 the “sync group.” And for similar reasons, any subsequent user action in the user interface with  
19 respect to the “sync group,” such as an interaction with the “playback controls,” also would not  
20 amount to a “request to invoke” the “sync group.”

21 1056. Similar to his position regarding Sonos’s 2005 system, Dr. Schonfeld’s position to  
22 the contrary here appears to be based on an interpretation of the term “invoke” that ties the act of  
23 “invok[ing]” a “zone scene” comprising a user-customized, pre-saved group of “zone players” to  
24 the time when the group of “zone players” is actually caused to play back audio, but in my opinion,  
25 this is not how a POSITA would understand the term “invoke” in the context of the claim language  
26 and specification of the '966 Patent. Rather, a POSITA would understand that the act of  
27 “invok[ing]” a “zone scene” comprising a user-customized, pre-saved group of “zone players”  
28 refers to the point in time when the group of “zone players” is activated for synchronous playback,

1 which is distinct from the act of initiating playback on that group of “zone players” (although in  
2 some scenarios it is possible that playback could be automatically initiated as a result of the “zone  
3 scene” being invoked). *See, e.g.*, ’407 Provisional at App’x A, p. 4 (explaining that when a “Zone  
4 Scene” is invoked at a time when “no music is playing in any Zone – then the zones will simply  
5 link in a group” without playing any music); 6/6/2022 Lambourne Dep. Tr. at 59:5-16 (inventor  
6 of the ’885 and ’966 Patents testifying that a “zone scene” does not have to start actively playing  
7 audio “at that moment when the group is invoked”). And as explained previously, the “sync  
8 groups” in a Squeezebox system were automatically invoked at the time of their creation and then  
9 only remained in existence for the temporary period of time during which they were in an active  
10 state, so there would have never been a period of time during which a “sync group” was created  
11 and in existence but was in an inactive, uninvoked state such that a user was presented with an  
12 option to “request to invoke” the “sync group” as required by Asserted Claim 1 of the ’966 Patent.

13 1057. Dr. Schonfeld’s second theory appears to be that a “zone scene” would have been  
14 “selected for invocation” in a hypothetical scenario where a “sync group” includes at least one  
15 Squeezebox player that is initially powered off and a user then turns on that Squeezebox player.  
16 *See* Schonfeld Op. Report at ¶ 779 (stating that “it is clear that even after player1 receives the first  
17 and second indications adding it to the two different groups, it continues to operate in standalone  
18 mode . . . until one of the groups is selected for invocation,” which “may take place by turning on  
19 the standalone player or the non-standalone players in the group such that each member of the  
20 group plays back music based on the play command in synchrony”). However, as I previously  
21 explained in my ’885 Rebuttal Report, I also disagree that Dr. Schonfeld’s second theory involves  
22 a “zone scene” being “selected for invocation,” as required by limitation 1.9 of Asserted Claim 1  
23 of the ’885 Patent. And for similar reasons to those explained in my ’885 Rebuttal Report, I  
24 disagree that Dr. Schonfeld’s second theory involves a “request to invoke” a “zone scene,” as  
25 required by limitation 1.10 of Asserted Claim 1 of the ’966 Patent.

26 1058. As an initial matter, because a “sync group” is not a “zone scene” for all of the  
27 reasons explained above, none of the alleged “selections” identified by Dr. Schonfeld meet the  
28 claimed requirement of receiving a “request to invoke” a “zone scene.”

1           1059. Further, even setting aside the other fundamental differences between a “sync  
2 group” and a “zone scene,” the user action of “turning on” a powered-off Squeezebox player in  
3 Dr. Schonfeld’s hypothetical “sync group” does not amount to a “request to invoke” the “sync  
4 group.” Again, this is because such a hypothetical “sync group” would be automatically invoked  
5 at the time of its creation and then only remained in existence for the temporary period of time  
6 during which it was in an active state, so there would have never been a period of time during  
7 which a “zone group” was created and in existence but was in an inactive, uninvoked state such  
8 that a user was presented with an option to “request to invoke” the “zone group.” Thus, at the time  
9 that a powered-off Squeezebox player in the hypothetical “sync group” was turned on, such a “sync  
10 group” would have already been “invoked” and thus such an action was not a “request to invoke”  
11 the “sync group.” Additionally, in my opinion, a POSITA would consider the user action of  
12 pressing a “power on” button for an individual Squeezebox player to be distinctly different from  
13 the claimed requirement of a “request to invoke” the “sync group.”

14           1060. Further yet, in this hypothetical scenario involving a user action to turn on a  
15 powered-off Squeezebox player in a “sync group,” such user action would never have been  
16 received by a computer installed with the SlimServer software at a time when the Squeezebox  
17 player was operating in “standalone mode,” as required by limitations 1.4 and 1.10 of Asserted  
18 Claim 1 of the ’966 Patent. Indeed, a POSITA would not consider a Squeezebox player that is  
19 powered off to be “operating in a standalone mode in which the first zone player is configured to  
20 play back media individually.”

21           1061. Still further, Dr. Schonfeld fails to present any evidence that a user would have ever  
22 created the type of hypothetical “sync group” he describes in his second theory where certain of  
23 the group members were powered off – let alone that a user would have created such a hypothetical  
24 “sync group” at a time that would qualify it as prior art to the ’966 Patent.

25           1062. I also note that both of Dr. Schonfeld’s theories for limitation 1.9 of Asserted Claim  
26 1 of the ’885 Patent appear to be based on a hypothetical scenario in which two independent  
27 SlimServer instances would be used to create two different “sync groups,” but this scenario is  
28 flawed for all of the reasons explained above.

1063. Thus, nothing in Dr. Schonfeld's Opening Report alters my opinion that a computer installed with the SlimServer software in a Squeezebox system did not have the functional capability required by limitations 1.4 / 1.10 of Asserted Claim 1 of the '966 Patent.

**ix. Squeezebox Did Not Meet Limitation 1.11**

1064. Limitation 1.11 of Asserted Claim 1 of the '966 Patent requires the "computing device" to be encoded with executable "program instructions" that cause the computing device to perform the following function(s):

[1.11] based on the third request, causing the first zone player to transition from operating in the standalone mode to operating in accordance with the first predefined grouping of zone players such that the first zone player is configured to coordinate with at least the second zone player to output media in synchrony with output of media by at least the second zone player.

1065. In my opinion, Squeezebox did not meet this requirement.

1066. As explained above, the evidence I have reviewed establishes that Squeezebox only provided users with the ability to form and use ad-hoc "sync groups," which are not the claimed "zone scenes" for the reasons explained above. Thus, for this reason, a computer installed with the SlimServer software in a Squeezebox system did not have any functional capability for invoking a "zone scene" – let alone the required functional capability for "based on the third request [to invoke the first zone scene], causing the first zone player to transition from operating in the standalone mode to operating in accordance with the first predefined grouping of zone players such that the first zone player is configured to coordinate with at least the second zone player to output media in synchrony with output of media by at least the second zone player."

1067. Further, in the context of the surrounding claim language, a POSITA would understand that the "computing device" is required to carry out the functionality of limitation 1.11 at a time when (i) the "first zone scene" and "second zone scene" have been created and are both in existence and (ii) the "first zone player" is "operating in a standalone mode," which means that the "first zone scene" and the "second zone scene" both must be in an inactive state at the time that this functionality is carried out (otherwise, the "first zone player" could not be in "standalone mode"). However, in Squeezebox, it was not possible for an ad-hoc "sync group" to exist in an



1 inactive state in which the members of the “sync group” could be used for individual playback  
2 while the “sync group” remained available for selection by a user; rather, an ad-hoc “sync group”  
3 only remained in existence for the temporary period of time during which it was activated, and  
4 once deactivated, the “zone group” would cease to exist.

5 1068. Further yet, in the context of the surrounding claim language, a POSITA would  
6 understand that the “computing device” is required to carry out the functionality of limitation 1.11  
7 at some point in time that is later than when it received the “request to create [the] first zone scene”  
8 and the “first zone scene” was created based on that “request.” Indeed, at a minimum, there must  
9 be a time gap between the time when the “computing device” received the “request to create [the]  
10 first zone scene” and the time when the “computing device” carries out the functionality of  
11 limitation 1.11 that is long enough to allow (i) the “first zone scene” to be created, (ii) the  
12 “computing device” to display “representation[s]” of the “first zone scene” as well as the “second  
13 zone scene,” and (iii) a user to view the displayed “representation[s]” of the “first zone scene” and  
14 “second zone scene” and then input the “request to invoke the first zone scene.” However, in  
15 Squeezebox, a computer installed with the SlimServer software would have only received a single  
16 request that served to both create and invoke a “sync group,” and this single request is what would  
17 have triggered the computer installed with the SlimServer software to configure itself to control  
18 the audio buffer and playback on the Squeezebox players in the “sync group” in order to cause  
19 those Squeezebox players to become configured to play back the same music simultaneously – a  
20 computer installed with the SlimServer software would have never received an initial “request to  
21 create” a “sync group” followed by some later, separate “request to invoke” the “sync group.”  
22 This is because an ad-hoc “sync group” was automatically invoked at the time of its creation and  
23 then only remained in existence for the temporary period of time during which it was in an active  
24 state, after which time the “sync group” would cease to exist. Thus, in Squeezebox, there would  
25 have never been a period of time during which a “sync group” was created and in existence but  
26 was in an inactive, uninvoked state such that a user was presented with an option to “request to  
27 invoke” the “sync group” that would subsequently trigger the computer installed with the  
28 SlimServer software to cause the Squeezebox player in a “sync group” to become configured to

1 play back the same music simultaneously.

2 1069. Still further, the evidence I have reviewed establishes that a Squeezebox player did  
3 not have the capability to “transition[] from operating in [a] standalone mode to operating in  
4 accordance with” a “sync group” such that the Squeezebox player would have been “configured  
5 to coordinate with at least [one other Squeezebox player] to output media in synchrony with output  
6 of media by at least [the one other Squeezebox player].” In fact, the evidence I have reviewed  
7 establishes a Squeezebox player did not have the capability to “coordinate” with another  
8 Squeezebox player” for any purpose – let alone for purposes of outputting audio in synchrony --  
9 nor did a Squeezebox player have the capability to change its “configur[ation]” as it related to  
10 audio playback. To the contrary, the SlimServer software was exclusively responsible for the  
11 “sync group” functionality, and the Squeezebox players never changed into a different “mode” for  
12 group playback or even had any awareness of whether or not they were part of a “sync group.”  
13 See Schonfeld Op. Report at ¶ 534 (“The *SlimServer* server represents sync groups internally using  
14 the ‘master’, ‘slaves’, and ‘syncgroupid’ properties for a client (player).”), ¶ 536 (“The *SlimServer*  
15 persists the membership of a sync group by storing the definition of the syncgroupid property for  
16 each group member into the *SlimServer*’s preferences file.”), ¶ 708 (“When the master is in ‘play’  
17 mode, *SlimServer* causes the client to jump to the current song in the master’s playlist and transition  
18 from ‘stop’ mode to ‘play’ mode”).

19 1070. Despite this clear evidence establishing that a computer installed with the  
20 SlimServer software did not have any “zone scenes” capability, Dr. Schonfeld nevertheless opines  
21 that claim limitation 1.11 of Asserted Claim 1 of the ’966 Patent was either disclosed or rendered  
22 obvious by Squeezebox. See Schonfeld Op. Report at ¶ 1012. However, I find Dr. Schonfeld’s  
23 opinions regarding Squeezebox and claim limitation 1.11 of Asserted Claim 1 of the ’966 Patent  
24 to be flawed for several reasons.

25 1071. As an initial matter, the entirety of Dr. Schonfeld’s discussion regarding  
26 Squeezebox and claim limitations 1.4 and 1.11 of Asserted Claim 1 of the ’966 Patent is shown in  
27 the screenshot below from Dr. Schonfeld’s Opening Report:  
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(xii) *Limitation 1.11 based on the third request, causing the first zone player to transition from operating in the standalone mode to operating in accordance with the first predefined grouping of zone players such that the first zone player is configured to coordinate with at least the second zone player to output media in synchrony with output of media by at least the second zone player.*

1012. *See supra* '885 claim 1, Limitation 1.10.

1072. As these screenshots demonstrate, Dr. Schonfeld is relying exclusively on his prior discussion of Squeezebox in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a “computing device” configured to “serv[e] as a controller” as opposed to a “zone player”), claim limitation 1.11 of Asserted Claim 1 of the '966 Patent uses different claim language than the limitations of Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion of Squeezebox in the context of the claim limitations of Asserted Claim 1 of the '885 Patent applies to claim limitation 1.11 of Asserted Claim 1 of the '966 Patent. In fact, Dr. Schonfeld fails to even state whether his opinion is that claim limitation 1.11 of Asserted Claim 1 of the '966 Patent was actually *disclosed* by Squeezebox versus whether his opinion is that claim limitation 1.11 of Asserted Claim 1 of the '966 Patent was only *rendered obvious* by the Squeezebox. And along similar lines, Dr. Schonfeld never articulates what he considers to be the “third request to invoke the first zone scene” or what functionality satisfies the “causing” limitation in Squeezebox. For these reasons, I disagree that Dr. Schonfeld’s barebones discussion of claim limitation 1.11 of Asserted Claim 1 of the '966 Patent amounts to a detailed and complete statement of all opinions to be expressed and the basis and reasons therefor, which I understand to be the governing standard for expert reports, and that barebones discussion has prejudiced my ability to fully discern, assess, and respond to his opinions regarding claim limitation 1.11 of Asserted Claim 1 of the '966 Patent.<sup>44</sup>

1073. With that said, as I have discussed above in Section XV.B.1.ii as well as in my '885

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<sup>44</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies in his Opening Report, I expressly reserve my right to respond.

1 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's analysis of  
2 Squeezebox in the context of Asserted Claim 1 of the '885 Patent suffers from a number of flaws,  
3 many of which are applicable to claim limitation 1.11 of Asserted Claim 1 of the '966 Patent as  
4 well – including that his analysis is premised on both an incorrect interpretation of what is required  
5 to qualify as a “zone scene,” an incorrect interpretation of what is required to “coordinate with at  
6 least the second zone player to output media in synchrony with output of media by at least the  
7 second zone player,” and an inaccurate and misleading characterization of Squeezebox system  
8 functionality and the evidence related thereto.

9 1074. For instance, in his section discussing Squeezebox and claim limitation 1.10 of  
10 Asserted Claim 1 of the '885 Patent, which is directed to player-side functionality for  
11 “transitioning from operating in the standalone mode to operating in accordance with” a selected  
12 “zone scene,” Dr. Schonfeld again relies on the functionality for selecting and playing back audio  
13 on an ad-hoc “sync group” of Squeezebox players. This is demonstrated by the following  
14 paragraphs of Dr. Schonfeld's Opening Report:

15 The evidence disclosing this claim limitation is described above, which transitions  
16 the Squeezebox or SoftSqueeze player from playing (or not playing) independently  
17 of the group to play in accordance with the group. As described above, the  
18 Squeezeboxes coordinate through master and slave communication to output music  
19 in synchrony, and the strm/play messages cause the speaker to operate in  
20 accordance with the claimed “zone scene.”

21 Further, as described in the previous claim limitation, a user may select a  
22 synchronization group for playback using the Player selector box, and use the  
23 playback controls to cause the Squeezeboxes to operate as a synchronous playback  
24 group. At the time that the synchronization group is selected and media is output  
25 from the synchronization group, the Squeezeboxes discontinue their previous  
26 playback and begin playing back as part of the synchronization group.

27 Schonfeld Op. Report at ¶¶ 807-808

28 1075. However, as an initial matter, the alleged functionality identified by Dr. Schonfeld  
in these paragraphs fails to amount to a computer installed with the SlimServer software receiving  
the claimed “request to invoke the first zone scene” for all of the reasons explained above with  
respect to limitation 1.10 of Asserted Claim 1 of the '966 Patent.

1076. Further, because a “sync group” is not a “zone scene” for all of the reasons

1 explained above, this alleged functionality cannot meet the claimed requirement of “based on  
2 receiving the third request [to invoke the first zone scene], causing the first zone player to transition  
3 from operating in the standalone mode to operating in accordance with the first predefined  
4 grouping of zone players” of the “first zone scene.”

5 1077. Further yet, even setting aside the other fundamental differences between a “sync  
6 group” and a “zone scene,” neither the user action of selecting a previously-created “sync group”  
7 in the “player selector” dropdown of the SlimServer software’s web-based UI nor the user action  
8 of using the “playback controls” for the selected “sync group” amounts to a “request to invoke”  
9 the “sync group” that triggers the computer installed with the SlimServer software to cause the  
10 Squeezebox players in a “sync group” to begin coordinating with one another for synchronous  
11 playback in accordance with the “sync group.” This is because a “sync group” was automatically  
12 invoked at the time of its creation and then only remained in existence for the temporary period of  
13 time during which it was in an active state, so there would have never been a period of time during  
14 which a “sync group” was created and in existence but was in an inactive, uninvoked state such  
15 that a user was presented with an option to “request to invoke” the “sync group” that would  
16 subsequently trigger the computer installed with the SlimServer software to cause the Squeezebox  
17 players in a “sync group” to begin coordinating with one another for synchronous playback in  
18 accordance with the “sync group.” Instead, at the time that a “sync group” was selected in the  
19 “player selector” dropdown of the SlimServer software’s web-based UI, the “sync group” would  
20 have already been “invoke[d]” in the sense that the SlimServer software would have already  
21 configured itself to control the audio buffer and playback on the Squeezebox players in the “sync  
22 group” in order to cause those Squeezebox players to play back the same music simultaneously,  
23 so the user actions described in paragraphs 807-808 of Dr. Schonfeld’s Opening Report would not  
24 have been a “request to invoke” a “sync group” that triggers computer installed with the  
25 SlimServer software to cause the Squeezebox players in the “sync group” to transition from  
26 operating in a standalone mode to operating in accordance with the “sync group” such that the  
27 Squeezebox players begin coordinating with one another for synchronous playback in accordance  
28 with the “sync group.” And for similar reasons, a “strm/play message” sent by the computer

1 installed with the SlimServer software in response to a user's interaction with the "playback  
2 controls" would not have caused the Squeezebox players in a "sync group" to transition from  
3 operating in a standalone mode to operating in accordance with the "sync group."

4 1078. As above, Dr. Schonfeld's position to the contrary appears to be based on an  
5 interpretation of the term "invoke" that ties the act of "invok[ing]" a "zone scene" comprising a  
6 user-customized, pre-saved group of "zone players" to the time when the group of "zone players"  
7 is actually caused to play back audio, but as explained above, this is not how a POSITA would  
8 understand the term "invoke" in the context of the claim language and specification of the '966  
9 Patent. Rather, a POSITA would understand the act of "invok[ing]" a "zone scene" comprising a  
10 user-customized, pre-saved group of "zone players" to refer to the point in time when the pre-  
11 saved group of "zone players" is activated for synchronous playback such that the "zone players"  
12 enter a mode in which they are controlled and used as part of the group.

13 1079. Still further, contrary to Dr. Schonfeld's unsupported statement here, the evidence  
14 I have reviewed establishes that the Squeezebox players relied on by Dr. Schonfeld would have  
15 never "coordinate[d] through master and slave communication to output music in synchrony."  
16 Instead, it was the SlimServer software that was exclusively responsible for the "sync group"  
17 functionality – a Squeezebox player in a "sync group" was not capable of communicating with or  
18 otherwise working together with another Squeezebox player in the "sync group" in order to  
19 achieve synchronous playback. In fact, a Squeezebox player would not have had any awareness  
20 that it had even been added to a "sync group," and was only capable of operating in accordance  
21 with instructions received from the computer installed with the SlimServer software. *See, e.g.,*  
22 GOOG-SONOS-NDCA-00108095-588 at GOOG-SONOS-NDCA-00108181.<sup>45</sup>

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23 <sup>45</sup> For similar reasons, I disagree with Dr. Schonfeld's statement earlier in his Opening Report that  
24 "[t]he master device receives a stream of audio content in chunks from a network and pushes the  
25 received chunks to the slave devices." *See* Schonfeld Op. Report at ¶ 215. As with Dr. Schonfeld's  
26 statement that "the Squeezeboxes coordinate through master and slave communication to output  
27 music in synchrony," Dr. Schonfeld fails to support this statement with any evidence, and the I  
28 evidence I have reviewed establishes that it is always the computer installed with the SlimServer  
software – not the "master device" – that sends the audio content to the "slave devices." *See*  
Slim/Player/Source.pm:playmode(); Slim/Server/Squeezebox.pm:play();  
Slim/Server/Squeezebox.pm:stream(); Slim/Server/Squeezebox.pm:sendFrame().



1 1080. Elsewhere in his Opening Report, Dr. Schonfeld appears to acknowledge that a  
2 Squeezebox player in a “sync group” was not actually capable of communicating with another  
3 Squeezebox player in the “sync group,” and that it was the SlimServer software that was  
4 responsible for the “sync group” functionality. *See, e.g.,* Schonfeld Op. Report at ¶¶ 555-556,  
5 564-565. However, Dr. Schonfeld nevertheless maintains that the SlimServer functionality for  
6 controlling Squeezebox players in a “sync group” to play back the same music simultaneously  
7 amounts to a first Squeezebox player in a “sync group” being “*configured to coordinate with*” a  
8 second Squeezebox player in the “sync group” in order to output audio in synchrony, as required  
9 by limitation 1.10 of the ’885 Patent. *Id.* at ¶¶ 105, 555-556, 564-565. This opinion is based on  
10 Dr. Schonfeld’s flawed view that the Court’s findings with respect to the “indication” requirements  
11 of claims limitations 1.6-1.7 of the ’885 Patent somehow impacted the scope and meaning of the  
12 “configured to coordinate” requirement of limitation 1.10 of the ’885 Patent, which I disagree with  
13 for the reasons I already explained above in Sections X.C.2.

14 1081. For instance, at paragraphs 555-556 of his Opening Report, Dr. Schonfeld states as  
15 follows:

16 Additionally, as I discussed above, the Court’s Order with respect to Limitation 1.6  
17 further supports my opinion that Logitech’s prior art system also discloses the  
18 “configured to coordinate” element of Limitation 1.10. This is because the  
19 “coordinat[ion]” element can be met by a similar user action including, for  
20 example, a user adding a player to a synchrony group via a UI action, followed by  
a message to the zone player. As I discussed above, UI buttons on the Squeezebox  
device itself allow a user to initiate synchronization of the device with a  
synchronization group.

21 As shown below, following the UI selection, there is coordination in terms of (1)  
22 using the leader (“master”) Squeezebox’s playlist and (2) pushing the playlist  
23 content to be played back to the other players, for example in “chunks.” The source  
24 code reproduced below is written from the point of view of the “master”  
25 Squeezebox, and performs actions to synchronize this “master” Squeezebox with  
26 the other Squeezebox players in the sync group. While I understand the below  
27 screenshot to be of server-side code, it nonetheless reflects a leader (“master”) and  
28 follower (“slave”) structure in which the leader Squeezebox coordinates with  
multiple follower Squeezeboxes (“let[ting] everybody I’m sync’ed with”) to  
playback each “chunk in the queue,” in synchrony. *Compare with* SONOS-SVG2-  
00227433 and SONOS-SVG2-00227434 (discussing master/slave speaker  
coordination implementation in the Sonos System). The master’s playlist and  
shuffle list (indices into playlist) is used for all clients (players) in the sync group.



1 The client's (player's) master is determined by the masterOrSelf() function, which  
2 returns the master when the client is a synced slave and the client itself otherwise  
(i.e., synced master or unsynced client).

3 Schonfeld Op. Report at ¶¶ 555-556. I disagree with Dr. Schonfeld's statements in these  
4 paragraphs for several reasons.

5 1082. First, I disagree with Dr. Schonfeld's statement that "the 'coordinat[ion]' element  
6 can be met by a similar user action including, for example, a user adding a player to a synchrony  
7 group via a UI action, followed by a message to the zone player." Schonfeld Op. Report at ¶ 555.  
8 As I already explained above in Section X.C.2, the Court's findings with respect to the "indication"  
9 requirements of claim limitations 1.6-1.7 of the '885 Patent have no applicability to the  
10 "configured to coordinate" requirement of claim limitation 1.10 of the '885 Patent, which is a  
11 different claim limitation that has a different linguistic structure, and a "user action . . . followed  
12 by a message to the zone player" cannot meet the "configured to coordinate" requirement of claim  
13 limitation 1.10 of the '885 Patent for at least the reason that it does not involve any form of  
14 communication or interaction between zone players that are working together in order to achieve  
15 synchronous playback over a data network.

16 1083. Second, I disagree with Dr. Schonfeld's statement that "following the UI selection,  
17 there is coordination in terms of (1) using the leader ('master') Squeezebox's playlist and (2)  
18 pushing the playlist content to be played back to the other players, for example in 'chunks.'"  
19 Schonfeld Op. Report at ¶ 556. Both of these functions are carried out by computer installed with  
20 the Squeezebox server – not a Squeezebox player – and thus cannot amount to the type of  
21 "coordinat[ion]" between "zone players" that is required by claim limitation 1.10 of the '885  
22 Patent.

23 1084. Third, I find Dr. Schonfeld's statement that "[t]he source code reproduced below  
24 [in paragraphs 556-563] is written from the point of view of the 'master' Squeezebox" to be  
25 inaccurate and misleading. Schonfeld Op. Report at ¶ 556. To be clear, all of the Squeezebox  
26 source code cited by Dr. Schonfeld in his Opening Report is *SlimServer* source code that is written  
27 from the point of the *SlimServer* and exclusively describes functions that would have been  
28 performed by the computer installed with the SlimServer software. In this respect, the use of the

1 word “master” in the SlimServer source code refers to functions that were to be performed by *the*  
2 *SlimServer software* with respect to a Squeezebox player that was internally designated as a  
3 “master” of a “sync group” within the SlimServer software, and did not involve any  
4 “coordinat[ion]” between Squeezebox players.

5 1085. Fourth, I find Dr. Schonfeld’s statement that “[w]hile I understand the below  
6 screenshot to be of server-side code, it nonetheless reflects a leader (‘master’) and follower  
7 (‘slave’) structure in which the leader Squeezebox coordinates with multiple follower  
8 Squeezeboxes . . . to playback each ‘chunk in the queue,’ in synchrony” to be inaccurate and  
9 misleading. Schonfeld Op. Report at ¶ 556. To be clear, the “master” and “slave” “structure[s]”  
10 that Dr. Schonfeld refers to here are *data structures* that are maintained internally by the  
11 *SlimServer software* – they are not the actual Squeezebox players that Dr. Schonfeld is relying on  
12 as the claimed “zone players.” In this respect, any discussion in the source code of the “master”  
13 and “slave” “structure[s]” refers to functions that were to be internally performed by the *SlimServer*  
14 *software*, and did not involve any “coordinat[ion]” between the actual Squeezebox players  
15 themselves. For example, the masterOrSelf() function identified by Dr. Schonfeld is an internal  
16 function performed by the *SlimServer software* in order to determine a given Squeezebox player’s  
17 current “master” (if any) for purposes of the SlimServer’s internal recordkeeping. As another  
18 example, the source code functions identified by Dr. Schonfeld related to the “master’s song” or  
19 the “master’s playlist” are internal functions performed by the *SlimServer software* with respect to  
20 data structures that are maintained internally by the SlimServer software. After performing certain  
21 of these functions, the SlimServer software may have then engaged in individual communication  
22 with one or more of the Squeezebox players (such as by sending “chunks” of audio content to  
23 certain Squeezebox players), but those Squeezebox players had no awareness of the SlimServer’s  
24 internal data structures or the existence of any “sync groups,” and at no point would the  
25 Squeezebox players have ever engaged in any form of communication or interaction with one  
26 another in order to achieve synchronous playback.

27 1086. Fifth, I disagree with Dr. Schonfeld’s suggestion that the Squeezebox “sync group”  
28 functionality is comparable to the “master/slave speaker coordination implementation in the Sonos

System.” Schonfeld Op. Report at ¶ 556. In Squeezebox, the SlimServer software was exclusively responsible for the “sync group” functionality, the designations of “master” and “slave” were solely used by the SlimServer software for internal recordkeeping, and the Squeezebox players did not have any awareness of the existence of “sync groups” nor did they engage in any form of communication or interaction with one another in order to achieve synchronous playback. In contrast, the ZonePlayers in a Sonos system were responsible for the “zone group” functionality, maintained data indicating the existence of the “zone groups” and the ZonePlayers’ roles within the “zone groups,” and communicated with one another over a data network in order to achieve synchronous playback.

1087. Turning to paragraphs 564-565 of his Opening Report, Dr. Schonfeld states as follows:

The foregoing is consistent with the Court’s Order, which does not require the indication to include the identity of each zone player within the zone scene. Instead, zone players within the zone scenes may coordinate using a leader-follower protocol as disclosed in the Squeezebox system as opposed to a direct coordination system implied by having each zone player maintain group membership.

To the extent Dr. Almeroth finds that the above does not reflect leader-follower coordination, I note, consistent with the Court’s statements that the “indication” does not require a zone player communicating with other speakers present in the group, that there is similarly no requirement that the zone player being “configured to coordinate” communicate *directly* with other zone players. In my opinion, Squeezebox communications via the SlimServer would also meet the claim requirements for similar reasons.

Schonfeld Op. Report at ¶¶ 564-565. I also disagree with Dr. Schonfeld’s statements in these paragraphs for several reasons.

1088. First, as I already explained above in Section X.C.2, I disagree that the Court’s findings with respect to the “indication” requirements of claim limitations 1.6-1.7 of the ’885 Patent have any applicability to the “configured to coordinate” requirement of claim limitation 1.10 of the ’885 Patent, which is a different claim limitation that has a different linguistic structure. In this respect, the fact that the “indications” of claim limitations 1.6-1.7 of the ’885 Patent need not identify the members of the pre-saved groups does not change the fact that claim limitation 1.10 of the ’885 Patent requires the “first zone player” to become “*configured to coordinate*” with

1 the “at least one other zone player” over a “data network” in order to achieve synchronous  
2 playback, which means that the “first zone player” must engage in some form of communication  
3 with the “at least one other zone player.”

4 1089. Second, I disagree with Dr. Schonfeld’s statement that the Squeezebox system  
5 discloses “zone players within the zone scenes [that] coordinate using a leader-follower protocol.”  
6 Schonfeld Op. Report at ¶ 564. Again, the Squeezebox players in a “sync group” did not engage  
7 in any “coordinat[ion]” and there was no “leader-follower protocol” in Squeezebox. Rather, the  
8 SlimServer was exclusively responsible for the “sync group” functionality and managed that  
9 functionality using internal data structures and internal “master” and “slave” designations, which  
10 is distinctly different from a “leader-follower protocol” as a POSITA would understand that  
11 phrase.

12 1090. Third, as I already explained above in Section X.C.2, I disagree with Dr.  
13 Schonfeld’s suggestion that the Court made “statements that the ‘indication’ does not require a  
14 zone player communicating with other speakers present in the group.” Schonfeld Op. Report at ¶  
15 565. The Court’s findings were confined to the question of whether the “indications” of claim  
16 limitations 1.6-1.7 of the ’885 Patent were required to identify the members of the pre-saved  
17 groups. The Court did not make any findings with respect to “communicating with other speakers  
18 present in the group.”

19 1091. Fourth, I disagree with Dr. Schonfeld’s attempt to dismiss the lack of any  
20 “coordinat[ion]” between Squeezebox players based on his statement that claim limitation 1.10 of  
21 the ’885 Patent does not require “a direct coordination system implied by having each zone player  
22 maintain group membership.” Schonfeld Op. Report at ¶ 564; *see also id.* at ¶ 565 (“there is  
23 similarly no requirement that the zone player being ‘configured to coordinate’ communicate  
24 **directly** with other zone players”). Again, this statement is premised on Dr. Schonfeld’s flawed  
25 interpretation of the “configured to coordinate” requirement and the implications of the Court’s  
26 July 21, 2022 order, and also introduces a new concept of a so-called “direct coordination system”  
27 that is not discussed in the intrinsic evidence or the Court’s July 21, 2022 order. It is not clear  
28 what Dr. Schonfeld means by “direct coordination system” or how he distinguishes that from other

1 forms of “coordinat[ion],” but in any event, my opinion regarding the lack of “coordinat[ion]”  
2 between Squeezebox players is not premised on any requirement of “*direct* coordination.” Rather,  
3 my opinion is that the Squeezebox players did not engage in the type of “coordinat[ion]” required  
4 by claim limitation 1.10 of the ’885 Patent because those players were incapable of engaging in  
5 any form of communication with one another (whether direct or otherwise) in order to achieve  
6 synchronous playback.

7 1092. Fifth, I disagree with Dr. Schonfeld’s suggestion that the Squeezebox players  
8 engage in “Squeezebox communications via the SlimServer,” which is not an accurate  
9 characterization of the functionality of a Squeezebox system. Schonfeld Op. Report at ¶ 565. The  
10 functionality of a Squeezebox system was driven entirely by the SlimServer, and all  
11 communications in a Squeezebox system were between the SlimServer and the individual  
12 Squeezebox players. At no point was there ever communication between Squeezebox players that  
13 was carried out “via the SlimServer.”

14 1093. Thus, for these reasons, I disagree with Dr. Schonfeld’s opinion that Squeezebox  
15 met the “configured to coordinate” requirement of claim limitation 1.10 of the ’885 Patent. And  
16 for similar reasons, I disagree that Squeezebox met the “configured to coordinate” requirement of  
17 claim limitation 1.11 of the ’966 Patent.

18 1094. As discussed above, Dr. Schonfeld also appears to be opining that a “zone scene”  
19 would be “invoked” in a Squeezebox system in a hypothetical scenario where a “sync group”  
20 includes at least one Squeezebox player that is initially powered off and a user then turns on that  
21 Squeezebox player. *See, e.g.*, Schonfeld Op. Report at ¶ 779 (stating that “it is clear that even after  
22 player1 receives the first and second indications adding it to the two different groups, it continues  
23 to operate in standalone mode . . . until one of the groups is selected for invocation,” which “may  
24 take place by turning on the standalone player or the non-standalone players in the group such that  
25 each member of the group plays back music based on the play command in synchrony”). However,  
26 I also disagree that this functionality amounts to claim limitation 1.11 of the ’966 Patent for at least  
27 the reasons that (i) turning on a powered-off Squeezebox player in a “sync group” does not amount  
28 to a “request to invoke” a “sync group” as explained above in connection with claim limitation

1 1.10 of the '966 Patent, and (ii) turning on a powered-off Squeezebox player in a “sync group”  
2 does not cause the Squeezebox players in the “sync group” to “coordinate” with one another to  
3 “output media in synchrony” because, as just explained, Squeezebox players were not capable of  
4 communicating or otherwise interacting with one another for purposes of engaging in synchronous  
5 playback.

6 1095. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that a computer  
7 installed with the SlimServer software in a Squeezebox system did not have the functional  
8 capability required by limitation 1.11 of Asserted Claim 1 of the '966 Patent.

9 **x. Asserted Claim 1 Would Not Have Been Obvious Based on**  
10 **Squeezebox in view of the Secondary References Identified by**  
11 **Dr. Schonfeld**

12 1096. In his Opening Report, Dr. Schonfeld does not offer any opinion that Asserted  
13 Claim 1 of the '966 Patent is anticipated by Squeezebox. *See* Schonfeld Op. Report at Section  
14 XII.B, ¶¶ 1001-1012. Instead, Dr. Schonfeld only opines that Asserted Claim 1 of the '966 Patent  
15 is rendered obvious based on Squeezebox. *Id.*

16 1097. In particular, Dr. Schonfeld’s section for the '966 Patent as compared to  
17 Squeezebox is entitled “‘966 Claims Are Obvious Based On Squeezebox in view of General  
18 knowledge of a POSITA, the Sonos System, the Sonos Forums, the Bose Lifestyle, or Millington.”  
19 Schonfeld Op. Report at Section XII.B. Dr. Schonfeld then includes a sub-section entitled “Claim  
20 1 Is Invalid Based On Squeezebox in view of General knowledge of a POSITA, the Sonos System,  
21 the Sonos Forums, the Bose Lifestyle, or Millington” where he lists out each limitation of Asserted  
22 Claim 1 of the '966 Patent, although Dr. Schonfeld does not provide any analysis of how the  
23 limitations of Asserted Claim 1 of the '966 Patent are allegedly disclosed or rendered obvious by  
24 Squeezebox in view of General knowledge of a POSITA, the Sonos System, the Sonos Forums,  
25 the Bose Lifestyle, or Millington.” *Id.* at Section XII.B.14, ¶¶ 1001-1012. Instead, Dr. Schonfeld  
26 merely refers back to the limitation-by-limitation analysis that he set forth in connection with his  
27 opinion that Asserted Claim 1 of the '885 Patent is rendered obvious based on Squeezebox. *Id.*

28 1098. However the Asserted Claims of the '966 Patent are directed to a different type of

1 device than Asserted Claim 1 of the '885 Patent (a “computing device” configured to “serv[e] as  
2 a controller” as opposed to a “zone player”), Asserted Claim 1 of the '966 Patent requires a  
3 different combination of claim limitations than Asserted Claim 1 of the '885 Patent, and Dr.  
4 Schonfeld fails to provide any further explanation as to how his prior obviousness analysis of  
5 Asserted Claim 1 of the '885 Patent applies to Asserted Claim 1 of the '966 Patent. As a result,  
6 Dr. Schonfeld fails to articulate how or why even a single claim limitation of Asserted Claim 1 of  
7 the '966 Patent would be rendered obvious based on “Squeezebox in view of General knowledge  
8 of a POSITA, the Sonos System, the Sonos Forums, the Bose Lifestyle, or Millington”– let alone  
9 how or why the entire combination of claim limitations of Asserted Claim 1 of the '966 Patent  
10 would be rendered obvious based on “Squeezebox in view of General knowledge of a POSITA,  
11 the Sonos System, the Sonos Forums, the Bose Lifestyle, or Millington.” For these reasons, I  
12 disagree that Dr. Schonfeld has provided a detailed and complete statement of all opinions to be  
13 expressed and the basis and reasons therefor, which I understand to be the governing standard for  
14 expert reports, and Dr. Schonfeld’s failure to do so has prejudiced my ability to fully discern,  
15 assess, and respond to his obviousness opinions regarding Asserted Claim 1 of the '966 Patent.<sup>46</sup>

16 1099. Nevertheless, in the sub-sections below, I have made my best effort to assess and  
17 respond to Dr. Schonfeld’s unsupported and conclusory opinion that Asserted Claim 1 of the '966  
18 Patent is rendered obvious based on” Squeezebox in view of General knowledge of a POSITA, the  
19 Sonos System, the Sonos Forums, the Bose Lifestyle, or Millington.”

20 **(a) Squeezebox in view of the General Knowledge of a**  
21 **POSITA**

22 1100. At Section XII.B of his Opening Report, Dr. Schonfeld states his opinion that  
23 Asserted Claim 1 of the '966 Patent is rendered obvious based on Squeezebox view of the “general  
24 knowledge of a POSITA.” Schonfeld Op. Report at Section XII.B, ¶¶ 1001-1012. I disagree – in  
25 my opinion, claim 1 of the '966 Patent is not rendered obvious by Squeezebox in view of the  
26 “general knowledge of a POSITA,” and Dr. Schonfeld’s opinion to the contrary is flawed for

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27 <sup>46</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.



several reasons.

1101. As an initial matter, Dr. Schonfeld fails to set forth any bases or reasoning for his stated opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on Squeezebox in view of the “general knowledge of a POSITA.” *See* Schonfeld Op. Report at ¶¶ 1001-1012. Instead, Dr. Schonfeld relies exclusively on the obviousness analysis that he set forth in connection with his opinion that Asserted Claim 1 of the '885 Patent is rendered obvious by Squeezebox system in view of the “general knowledge of a POSITA,” without providing any explanation as to how that prior obviousness analysis of Asserted Claim 1 of the '885 Patent applies to Asserted Claim 1 of the '966 Patent. *Id.* For this reason alone, I find Dr. Schonfeld’s opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on Sonos’s 2005 system in view of the “general knowledge of a POSITA” to be deficient.

1102. Additionally, Dr. Schonfeld’s obviousness analysis that he provides in connection with his opinion that Asserted Claim 1 of the '885 Patent is rendered obvious by Squeezebox in view of the “general knowledge of a POSITA” suffers from a number of flaws, many of which are applicable to the Asserted Claims of the '966 Patent as well.

1103. First, even if a Squeezebox system were to be modified in the various ways proposed by Dr. Schonfeld, such a hypothetical system still would not achieve either the specific player-side “zone scenes” functionality required by Asserted Claim 1 of the '885 Patent or the specific controller-side “zone scenes” functionality required by Asserted Claim 1 of the '966 Patent that Dr. Schonfeld failed to analyze.

1104. Second, Dr. Schonfeld’s proposed modifications to Squeezebox are all nothing more high-level suggestions – such as “add[ing] overlapping groups” – and Dr. Schonfeld has failed to provide any explanation as to how these proposed modifications to a Squeezebox system would have actually been implemented, let alone how the proposed modifications would have achieved either the specific player-side “zone scenes” functionality required by Asserted Claim 1 of the '885 Patent or the specific controller-side “zone scenes” functionality required by Asserted Claim 1 of the '966 Patent that Dr. Schonfeld failed to analyze. . Moreover, in my opinion, implementing Dr. Schonfeld’s high-level suggestions would have required substantial, non-

1 obvious modifications to the “sync group” functionality of a Squeezebox system at the time.

2 1105. Third, I disagree that a POSITA in 2005-06 would have been motivated to modify  
3 a Squeezebox system in any one of the ways proposed by Dr. Schonfeld – let alone all of the  
4 different ways proposed by Dr. Schonfeld. As discussed above, Squeezebox already included ad-  
5 hoc “sync group” functionality that allowed Squeezebox players to be grouped together on demand for  
6 “synchronized” playback (albeit in a different way than the claimed “zone scenes” functionality), and  
7 I have not seen any evidence suggesting that a POSITA in 2005-06 would have recognized any  
8 particular problem with Squeezebox’s ad-hoc “sync group” functionality that would have led such a  
9 POSITA to consider a different mechanism for grouping Squeezebox players together – let alone  
10 would have led such a POSITA to implement the specific “zone scenes” functionality that is claimed  
11 in the ’885 and ’966 Patents. For at least these reasons, I disagree that a POSITA in 2005-06 would  
12 have been motivated to replace the existing ad-hoc “sync group” functionality of a Squeezebox system  
13 with the claimed “zone scenes” functionality, particularly in view of the time, effort, and cost that  
14 would have been required to overhaul Squeezebox’s grouping mechanism .

15 1106. Nevertheless, in his Opening Report, Dr. Schonfeld offers several unsupported,  
16 conclusory theories as to why it a POSITA in 2005-06 would have allegedly found it obvious to  
17 modify a Squeezebox system in the various ways proposed by Dr. Schonfeld. However, in addition  
18 to the fact that Dr. Schonfeld failed to articulate any reasoning as to why a POSITA would have  
19 been motivated to modify a Squeezebox system to achieve the specific controller-side “zone  
20 scenes” functionality required by Asserted Claim 1 of the ’966 Patent, I disagree with Dr.  
21 Schonfeld’s theories for the reasons explained below.

22 1107. Starting with paragraph 740 of his Opening Report, Dr. Schonfeld states as follows  
23 with respect to his proposed modification to “add overlapping groups”:

24 A person of skill in the art would have been motivated to add overlapping groups  
25 because Squeezebox’s own marketing materials touted the flexibility of its system  
26 to allow users to play back media throughout their household. *Supra*.

27 Schonfeld Op. Report at ¶ 740. I disagree. Squeezebox’s marketing materials touting the ability  
28 “the flexibility of its system to allow users to play back media throughout their household” was a  
description of capabilities that purportedly *already existed* a Squeezebox system. This statement

1 informing potential customers about an existing capability of a Squeezebox system would not have  
2 motivated a POSITA in 2005-06 to modify a Squeezebox system in any way – let alone a motivation  
3 to modify a Squeezebox system in the many ways required to achieve the specific controller-side  
4 “zone scenes” functionality required by Asserted Claim 1 of the ‘966 Patent.

5 1108. Turning next to paragraph 741 of his Opening Report, Dr. Schonfeld also states as  
6 follows with respect to his proposed modification to “add overlapping groups”:

7 A person of skill in the art would have recognized that by allowing a user to create  
8 speaker groups, those groups may either (1) allow overlapping group membership  
9 or (2) not allow overlapping group membership. Given that allowing overlapping  
10 group membership may be attractive to certain users because there was a recognized  
11 “need for dynamic control of the audio players as a group,” it would have been  
12 obvious to select allowing overlapping group membership when implementing  
13 speaker groups. ’885 Pat at 1:30-34.

14 Schonfeld Op. Report at ¶ 741. I disagree for the same reasons discussed above with respect to  
15 Sonos’s 2005 system.

16 1109. Specifically, as an initial matter, I disagree with Dr. Schonfeld’s suggestion that  
17 this would have simply been matter of whether or not to “allow overlapping group membership.”  
18 The evidence I have reviewed shows that a Squeezebox system was employing a distinctly  
19 different type of grouping technology that would not even allow for “overlapping group  
20 membership” because “zone groups” were temporary, ad-hoc groups that were automatically  
21 activated at the time they were created. As such, it would not have been possible to simply modify  
22 Squeezebox’s existing grouping technology to “allow overlapping group membership” – a  
23 completely different grouping technology would have been required. And in any event, modifying  
24 a Squeezebox system to “add overlapping groups” would not have achieved the specific “zone  
25 scenes” functionality required by either Asserted Claim 1 of the ’885 Patent or Asserted Claim 1  
26 of the ’966 Patent.

27 1110. Further, the fact that the inventor of the ’966 Patent recognized a “need for dynamic  
28 control of the audio players as a group” does not establish that a POSITA in 2005-06 would have  
recognized that same need, and Dr. Schonfeld fails to identify any other evidence to support his  
statement that this need would have been recognized by a POSITA in 2005-06. And regardless,

1 even if a POSITA in 2005-06 were to have recognized this need, I fail to see how that would have  
2 motivated a POSITA in 2005-06 to modify Squeezebox's ad-hoc "sync group" functionality at all  
3 given that it already allowed Squeezebox players to be controlled as a group – let alone would have  
4 motivated a POSITA in 2005-06 to replace Squeezebox's ad-hoc "sync group" functionality with  
5 the specific "zone scenes" functionality required by either Asserted Claim 1 of the '885 Patent or  
6 Asserted Claim 1 of the '966 Patent. .

7 1111. Further yet, Dr. Schonfeld fails to identify any evidence in support of his statement  
8 that "allowing overlapping group membership may be attractive to certain users," but even if this  
9 were true, Dr. Schonfeld fails to explain how or why this would have motivated a POSITA in  
10 2005-06 to replace Squeezebox's ad-hoc "sync group" functionality with the specific "zone scenes"  
11 functionality required by either Asserted Claim 1 of the '885 Patent or Asserted Claim 1 of the  
12 '966 Patent.

13 1112. Turning next to paragraphs 780-781 of his Opening Report, Dr. Schonfeld again  
14 cites to the section of Mr. Lambourne's "Zone Scenes" design specification entitled "What  
15 happens to the Music that's already playing when a Zone Scene is Started" and repeats his same  
16 argument that "[a] person of skill in the art would have found it obvious to choose from one of  
17 these possibilities— stop music, choose music, adopt the music of the only playing speaker, and  
18 continue playing the 'standalone' music—when adding a speaker to a group" because "[t]hese are  
19 a limited number of obvious design options." Schonfeld Op. Report at ¶¶ 780-781. However, Dr.  
20 Schonfeld's reliance on this section of the "Zone Scenes" design specification to support this  
21 opinion is flawed for all of the same reasons explained above, and I also disagree with Dr.  
22 Schonfeld's suggestion that configuring a ZonePlayer to "continue playing 'standalone' music"  
23 after being added to a "zone group" would have been recognized as an "obvious design option[]"  
24 by a POSITA in 2005-06 – the evidence I have reviewed shows that a Squeezebox system was  
25 employing a distinctly different type of grouping technology that only allowed a user to create  
26 temporary, ad-hoc "sync groups" that were automatically activated and could never exist in an  
27 inactivate state, and configuring a Squeezebox player to "continue playing 'standalone' music"  
28 after being added to a "sync group" would have been directly contrary to the principle of operation

1 of that ad-hoc “sync group” functionality. For this reason, a POSITA in 2005-06 would not have  
2 even considered configuring a Squeezebox player to “continue playing ‘standalone’ music” after  
3 being added to a “sync group” as a possible option, nor would a POSITA in 2005-06 have been  
4 motivated to modify a Squeezebox system to implement this change, as that would have required  
5 a completely different grouping technology.

6 1113. Fourth and finally, because there is no evidence that a POSITA in 2005-06 would  
7 have been motivated to modify a Squeezebox system in the many ways proposed by Dr. Schonfeld,  
8 it appears that Dr. Schonfeld has used the asserted claims as a roadmap to reach his conclusion  
9 that a POSITA would have found the claimed invention obvious based on a Squeezebox system,  
10 which I understand to be improper.

11 1114. Thus, for these reasons, it is my opinion that Asserted Claim 1 of the '966 Patent is  
12 not rendered obvious by a Squeezebox system alone.

13 **(j) Squeezebox in view of Sonos Forums**

14 1115. At Section VII.B of his Opening Report, Dr. Schonfeld states his opinion that  
15 Asserted Claim 1 of the '966 Patent is rendered obvious based on Squeezebox in view of his Sonos  
16 Forums reference. Schonfeld Op. Report at Section VII.B, ¶¶ 1001-1012. I disagree – in my  
17 opinion, Asserted Claim 1 of the '966 Patent is not rendered obvious by Squeezebox in view of  
18 the Sonos Forums, and Dr. Schonfeld’s opinion to the contrary is flawed for several reasons.

19 1116. As an initial matter, Dr. Schonfeld fails to set forth any bases or reasoning for his  
20 stated opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on Squeezebox  
21 in view of the Sonos Forums. *See* Schonfeld Op. Report at Section VII.B, ¶¶ 1001-1012. Instead,  
22 Dr. Schonfeld relies exclusively on the obviousness analysis that he set forth in connection with  
23 his opinion that Asserted Claim 1 of the '885 Patent is rendered obvious by Squeezebox in view  
24 of the Sonos Forums, without providing any explanation as to how that prior obviousness analysis  
25 of Asserted Claim 1 of the '885 Patent applies to Asserted Claim 1 of the '966 Patent. *Id.* For this  
26 reason alone, I find Dr. Schonfeld’s opinion that Asserted Claim 1 of the '966 Patent is rendered  
27 obvious based on Squeezebox in view of the Sonos Forums to be deficient.

28 1117. Additionally, as I previously explained in my '885 Rebuttal Report, Dr. Schonfeld’s

1 obviousness analysis that he provides in connection with his opinion that Asserted Claim 1 of the  
2 '885 Patent is rendered obvious by Squeezebox in view of the Sonos Forums suffers from a number  
3 of flaws, many of which are applicable to the Asserted Claims of the '966 Patent as well.

4 1118. First, as discussed above, the Sonos Forums reference, as a whole, does not qualify  
5 as prior art under §102 (a), (b), or (f). *Supra* Section XIII.B.

6 1119. Second, as explained above, the two Sonos Forums posts relied upon by Dr.  
7 Schonfeld fail to disclose or suggest the “zone scenes” functionality that is missing from the  
8 Squeezebox system. *Id.* Thus, even if a Squeezebox system were to be modified and combined  
9 with the Sonos Forums reference in the manner proposed by Dr. Schonfeld, such a hypothetical  
10 system still would not achieve either the specific player-side “zone scenes” functionality required  
11 by Asserted Claim 1 of the '885 Patent or the specific controller-side “zone scenes” functionality  
12 required by the Asserted Claims of the '966 Patent that Dr. Schonfeld failed to analyze.

13 1120. Third, Dr. Schonfeld has failed to provide any explanation as to how a Squeezebox  
14 system would have actually been modified to combine it with the subject matter discussed in the  
15 identified user posts from Sonos Forums – let alone how that alleged combination would have  
16 achieved the claimed invention.

17 1121. Fourth, Dr. Schonfeld fails to provide any explanation or evidence of how or why  
18 the identified user posts from the Sonos Forums would have motivated a POSITA in 2005-2006  
19 to modify a Squeezebox system in any way – let alone would have motivated a POSITA in 2005-  
20 2006 to replace Squeezebox's ad-hoc “sync group” functionality with the specific “zone scenes”  
21 functionality required by either Asserted Claim 1 of the '885 Patent or Asserted Claim 1 of the  
22 '966 Patent (which go well beyond what is discussed in the Sonos Forums posts). *See* Schonfeld  
23 Op. Report at ¶ 381.

24 1122. I have also seen other evidence contradicting Dr. Schonfeld's theory that a POSITA  
25 would have been motivated to replace Squeezebox's ad-hoc “sync group” functionality with the  
26 specific “zone scenes” functionality required by either Asserted Claim 1 of the '885 Patent or  
27 Asserted Claim 1 of the '966 Patent in view of the identified user posts from the Sonos Forums.  
28 For instance, as explained above, I have seen other user posts from the Sonos Forums casting doubt

as to how overlapping groups would have worked.

1123. Fifth and finally, because there is no evidence that a POSITA in 2005-06 would have been motivated to modify Squeezebox in view of the identified user posts from the Sonos Forums, it appears that Dr. Schonfeld has used the asserted claims as a roadmap to reach his conclusion that a POSITA would have found the claimed invention obvious based on Squeezebox in combination with the Sonos Forums, which I understand to be improper.

1124. Thus, for these reasons, it is my opinion that claim 1 of the '885 Patent is not rendered obvious by Squeezebox in combination with the Sonos Forums.

**(k) Squeezebox in view of Sonos's 2005 System**

1125. At Section VII.B of his Opening Report, Dr. Schonfeld states his opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on Squeezebox in view of Sonos's 2005 system. Schonfeld Op. Report at Section VII.B, ¶¶ 1001-1012. I disagree – in my opinion, Asserted Claim 1 of the '966 Patent is not rendered obvious by Squeezebox in view of Sonos's 2005 system, and Dr. Schonfeld's opinion to the contrary is flawed for several reasons.

1126. As an initial matter, Dr. Schonfeld fails to set forth any bases or reasoning for his stated opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on Squeezebox in view of Sonos's 2005 system. See Schonfeld Op. Report at Section VII.B, ¶¶ 1001-1012. Instead, Dr. Schonfeld relies exclusively on the obviousness analysis that he set forth in connection with his opinion that Asserted Claim 1 of the '885 Patent is rendered obvious based on Squeezebox, but Dr. Schonfeld also fails to provide any analysis of Squeezebox in view of Sonos's 2005 system in that section of his Opening Report. *Id.* For this reason alone, I find Dr. Schonfeld's opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on Squeezebox in view of Sonos's 2005 system to be deficient.

1127. Moreover, to the extent that Dr. Schonfeld does intend to offer an opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on Squeezebox in view of Sonos's 2005 system, I disagree with such an opinion for at least the same reasons explained in my other sections regarding Dr. Schonfeld's obviousness opinions that are based on Squeezebox and Sonos's 2005 system, including that neither Squeezebox nor Sonos's 2005 system included any



1 “zone scenes” functionality at all. Thus, even if a Squeezebox system were to be modified and  
2 combined with Sonos’s 2005 system, such a hypothetical system still would not achieve either the  
3 specific player-side “zone scenes” functionality required by Asserted Claim 1 of the ’885 Patent  
4 or the specific controller-side “zone scenes” functionality required by the Asserted Claims of the  
5 ’966 Patent.

6 1128. In addition to these deficiencies, Dr. Schonfeld also fails to provide any explanation  
7 or evidence of how a Squeezebox system would have actually been modified to incorporate the  
8 functionality of Sonos’s 2005 system, why a POSITA in 2005-2006 would have been motivated  
9 to modify a Squeezebox system to incorporate the functionality of Sonos’s 2005 system, or how  
10 such a hypothetical system would have achieved either the specific player-side “zone scenes”  
11 functionality required by Asserted Claim 1 of the ’885 Patent or the specific controller-side “zone  
12 scenes” functionality required by Asserted Claim 1 of the ’966 Patent.

13 1129. Thus, for these reasons, it is my opinion that Asserted Claim 1 of the ’966 Patent is  
14 not rendered obvious by Squeezebox in view of Sonos’s 2005 system.

15 **(I) Squeezebox in view of Bose Lifestyle**

16 1130. At Section VII.B of his Opening Report, Dr. Schonfeld states his opinion that  
17 Asserted Claim 1 of the ’966 Patent is rendered obvious based on Squeezebox in view of his Bose  
18 Lifestyle reference. Schonfeld Op. Report at Section VII.B, ¶¶ 1001-1012. I disagree – in my  
19 opinion, Asserted Claim 1 of the ’966 Patent is not rendered obvious by Squeezebox in view of  
20 Bose Lifestyle, and Dr. Schonfeld’s opinion to the contrary is flawed for several reasons.

21 1131. As an initial matter, Dr. Schonfeld fails to set forth any bases or reasoning for his  
22 stated opinion that Asserted Claim 1 of the ’966 Patent is rendered obvious based on Squeezebox  
23 in view of Bose Lifestyle. See Schonfeld Op. Report at Section VII.B, ¶¶ 1001-1012. Instead, Dr.  
24 Schonfeld relies exclusively on the obviousness analysis that he set forth in connection with his  
25 opinion that Asserted Claim 1 of the ’885 Patent is rendered obvious based on Squeezebox, but  
26 Dr. Schonfeld also fails to provide any analysis of Squeezebox in view of Bose Lifestyle in that  
27 section of his Opening Report. *Id.* For this reason alone, I find Dr. Schonfeld’s opinion that  
28 Asserted Claim 1 of the ’966 Patent is rendered obvious based on Squeezebox in view of Bose

1 Lifestyle to be deficient.

2 1132. Moreover, to the extent that Dr. Schonfeld does intend to offer an opinion that  
3 Asserted Claim 1 of the '966 Patent is rendered obvious based on Squeezebox in view of Bose  
4 Lifestyle, I disagree with such an opinion for at least the same reasons explained in my other  
5 sections regarding Dr. Schonfeld's obviousness opinions that are based on Squeezebox and Bose  
6 Lifestyle, including that neither Squeezebox nor Bose Lifestyle included any "zone scenes"  
7 functionality at all. Thus, even if a Squeezebox system were to be modified and combined with a  
8 Bose Lifestyle system, such a hypothetical system still would not achieve either the specific player-  
9 side "zone scenes" functionality required by Asserted Claim 1 of the '885 Patent or the specific  
10 controller-side "zone scenes" functionality required by the Asserted Claims of the '966 Patent that  
11 Dr. Schonfeld failed to analyze.

12 1133. In addition to these deficiencies, Dr. Schonfeld also fails to provide any explanation  
13 as to how a Squeezebox system would have actually been modified to incorporate the functionality  
14 of a Bose Lifestyle system, why a POSITA in 2005-2006 would have been motivated to modify a  
15 Squeezebox system to incorporate the functionality of a Bose Lifestyle system, or how such a  
16 hypothetical system would have achieved either the specific player-side "zone scenes"  
17 functionality required by Asserted Claim 1 of the '885 Patent or the specific controller-side "zone  
18 scenes" functionality required by Asserted Claim 1 of the '966 Patent.

19 1134. Thus, for these reasons, it is my opinion that Asserted Claim 1 of the '966 Patent is  
20 not rendered obvious by Squeezebox in view of Bose Lifestyle.

21 **(m) Squeezebox in view of Millington**

22 1135. At Section VII.B of his Opening Report, Dr. Schonfeld states his opinion that  
23 Asserted Claim 1 of the '966 Patent is rendered obvious based on Squeezebox in view of  
24 Millington. Schonfeld Op. Report at Section VII.B, ¶¶ 1001-1012. I disagree – in my opinion,  
25 Asserted Claim 1 of the '966 Patent is not rendered obvious by Squeezebox in view of Millington,  
26 and Dr. Schonfeld's opinion to the contrary is flawed for several reasons.

27 1136. As an initial matter, Dr. Schonfeld fails to set forth any bases or reasoning for this  
28 opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on Squeezebox in view

1 of Millington. *See* Schonfeld Op. Report at Section VII.B, ¶¶ 1001-1012. Instead, Dr. Schonfeld  
2 relies exclusively on the obviousness analysis that he set forth in connection with his opinion that  
3 Asserted Claim 1 of the '885 Patent is rendered obvious by Squeezebox in view of Millington,  
4 without providing any explanation as to how that prior obviousness analysis of Asserted Claim 1  
5 of the '885 Patent applies to Asserted Claim 1 of the '966 Patent. *Id.* For this reason alone, I find  
6 Dr. Schonfeld's opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on  
7 Squeezebox in view of Millington to be deficient.

8 1137. Additionally, as I previously explained in my '885 Rebuttal Report, Dr. Schonfeld's  
9 obviousness analysis that he provides in connection with his opinion that Asserted Claim 1 of the  
10 '885 Patent is rendered obvious by Squeezebox in view of Millington suffers from a number of  
11 flaws, many of which are applicable to the Asserted Claims of the '966 Patent as well.

12 1138. First, Millington was cited on the face of the '966 Patent, which shows that  
13 Millington was considered by the USPTO during prosecution of the '966 Patent and that the '966  
14 Patent (including Asserted Claim 1) was allowed to issue over Millington. *See* '966 Patent at 5  
15 (citing to U.S. Pat. No. 8,234,395, which is a U.S. counterpart to the Millington Canadian patent  
16 relied upon by Dr. Schonfeld). Since the USPTO already considered Millington, I understand that  
17 Dr. Schonfeld and Google have the added burden of overcoming the deference that is due to a  
18 qualified government agency, such as the USPTO, that is presumed to have properly done its job  
19 based on its expertise in interpreting references, its understanding of the level of ordinary skill in  
20 the art, and its duty to issue only valid patents. However, it is my opinion that Dr. Schonfeld  
21 failed to satisfy this added burden.

22 1139. Second, for similar reasons to those discussed above in connection with Sonos's  
23 2005 system, Millington fails to disclose or suggest the claimed "zone scene" functionality that  
24 was missing from a Squeezebox system. *Supra* Section XV.A.ix.d. Thus, even if a POSITA in  
25 2005-06 were to modify and combine a Squeezebox system with the identified functionality of  
26 Millington's "network audio system" in the manner proposed by Dr. Schonfeld, such a  
27 hypothetical system still would not achieve either the specific player-side "zone scenes"  
28 functionality required by Asserted Claim 1 of the '885 Patent or the specific controller-side "zone

1 scenes” functionality required by the Asserted Claims of the ’966 Patent that Dr. Schonfeld failed  
2 to analyze.

3 1140. Third, Dr. Schonfeld has failed to provide any explanation as to how a Squeezebox  
4 system would have actually been modified to incorporate the identified functionality of  
5 Millington’s “network audio system” – let alone how that alleged combination would have  
6 achieved the claimed invention.

7 1141. Fourth, I disagree that a POSITA in 2005-06 would have been motivated to modify  
8 a Squeezebox system to incorporate the identified grouping functionality of Millington’s “network  
9 audio system.” As discussed above, a Squeezebox system already included ad-hoc “sync group”  
10 functionality that allowed Squeezebox players to be grouped together on demand for “synchronized”  
11 playback (albeit in a different way than the claimed “zone scenes” functionality), and I have not seen  
12 any evidence suggesting that a POSITA in 2005-06 would have recognized any particular problem  
13 with Squeezebox’s ad-hoc “sync group” functionality that would have led such a POSITA to consider  
14 a different mechanism for grouping Squeezebox players – let alone would have led such a POSITA to  
15 implement the identified functionality of Millington’s “network audio system.” For at least these  
16 reasons, I disagree that a POSITA in 2005-06 would have been motivated to replace the existing ad-  
17 hoc “sync group” functionality of a Squeezebox system with the identified functionality of  
18 Millington’s “network audio system,” particularly in view of the time, effort, and cost that would  
19 have been required to overhaul the grouping mechanism of a Squeezebox system.

20 1142. In his Opening Report, Dr. Schonfeld says that a POSITA would have been  
21 motivated to combine Squeezebox with Millington because “Mr. Millington worked on Sonos  
22 products that are in the same field of endeavor as the [Squeezebox], and therefore it would have  
23 been an obvious choice to look to for guidance about potential modifications to that system,” and  
24 that “a POSITA would have looked to Millington to understand the Sonos System or its  
25 competitors, like Squeezebox.” Schonfeld Op. Report at ¶ 754. However, these generic statements  
26 fail to establish why a POSITA in 2005-06 would have been motivated to make any modification  
27 to Squeezebox at all – let alone why a POSITA in 2005-06 would have been motivated to replace  
28 Squeezebox’s ad-hoc “sync group” functionality with the grouping functionality of Millington’s

1 “networked audio system.”

2 1143. I have also seen evidence of affirmative reasons why a POSITA would not have  
3 been motivated to replace Squeezebox’s ad-hoc “sync group” functionality with the grouping  
4 functionality of Millington’s “networked audio system.” For instance, Squeezebox system had a  
5 different distinctly system architecture than Millington’s “networked audio system” because it  
6 relied on a centralized server called a SlimServer that was exclusively responsible for the “sync  
7 group” functionality of a Squeezebox system. Given this difference in the system architectures, a  
8 POSITA would have been dissuaded from modifying a Squeezebox system to replace its ad-hoc  
9 “sync group” functionality with the grouping functionality of Millington’s “networked audio  
10 system.”

11 1144. Finally, because there is no evidence that a POSITA in 2005-06 would have been  
12 motivated to modify Squeezebox to combine it with the identified functionality of Millington, it  
13 appears that Dr. Schonfeld has used the asserted claims as a roadmap to reach his conclusion that  
14 a POSITA would have found the claimed invention obvious based on Squeezebox in combination  
15 with Millington, which I understand to be improper.

16 1145. Thus, for these reasons, it is my opinion that claim 1 of the ’885 Patent is not  
17 rendered obvious by Squeezebox in combination with Millington.

18 **(n) Squeezebox in view of Nourse**

19 1146. In Section VII.B of his Opening Report entitled “‘966 Claims Are Obvious Based  
20 On Squeezebox in view of General knowledge of a POSITA, the Sonos System, the Sonos Forums,  
21 the Bose Lifestyle, or Millington,” Dr. Schonfeld does not identify Squeezebox in view of Nourse  
22 as an obviousness combination for Asserted Claim 1 of the ’966 Patent. S Schonfeld Op. Report  
23 at Section VII.B, ¶¶ 1001-1012. However, in his earlier “Summary of Opinions” section, Dr.  
24 Schonfeld includes bullets stating that “Squeezebox in combination with Nourse renders the  
25 asserted claims obvious” and “Squeezebox in combination with Sonos Forums, Squeezebox,  
26 Millington, and/or *Nourse* renders the asserted claims obvious.” *Id.* at ¶ 6. In view of this  
27 inconsistency, it is not clear whether Dr. Schonfeld is offering an opinion that Asserted Claim 1  
28 of the ’966 Patent is rendered obvious based on Squeezebox in view of Nourse, but to the extent

1 he is offering such an opinion, I disagree – in my opinion, Asserted Claim 1 of the '966 Patent is  
2 not rendered obvious by Squeezebox in view of Nourse, and Dr. Schonfeld's apparent opinion to  
3 the contrary is flawed for several reasons.

4 1147. As an initial matter, to the extent that Dr. Schonfeld is offering an opinion that that  
5 Asserted Claim 1 of the '966 Patent is rendered obvious based on Squeezebox in view of Nourse,  
6 Dr. Schonfeld fails to set forth any bases or reasoning for such an opinion. See Schonfeld Op.  
7 Report at Section VII.B, ¶¶ 1001-1012. Instead, Dr. Schonfeld relies exclusively on the  
8 obviousness analysis that he set forth in connection with Asserted Claim 1 of the '885 Patent,  
9 without providing any explanation as to how that prior obviousness analysis of Asserted Claim 1  
10 of the '885 Patent applies to Asserted Claim 1 of the '966 Patent. *Id.* For this reason alone, I find  
11 Dr. Schonfeld's apparent opinion that Asserted Claim 1 of the '966 Patent is rendered obvious  
12 based on Squeezebox in view of Nourse to be deficient.

13 1148. Additionally, as I previously explained in my '885 Rebuttal Report, Dr. Schonfeld's  
14 obviousness analysis that he provides in connection with his opinion that Asserted Claim 1 of the  
15 '885 Patent is rendered obvious based on Squeezebox in view of Nourse suffers from a number of  
16 flaws, many of which are applicable to the Asserted Claims of the '966 Patent as well.

17 1149. First, Nourse was cited on the face of the '966 Patent, which shows that Nourse  
18 was considered by the USPTO during prosecution of the '966 Patent and that the '966 Patent  
19 (including Asserted Claim 1) was allowed to issue over Nourse. *See* '966 Patent at 4. Since the  
20 USPTO already considered Nourse, I understand that Dr. Schonfeld and Google have the added  
21 burden of overcoming the deference that is due to a qualified government agency, such as the  
22 USPTO, that is presumed to have properly done its job based on its expertise in interpreting  
23 references, its understanding of the level of ordinary skill in the art, and its duty to issue only valid  
24 patents. However, it is my opinion that Dr. Schonfeld failed to satisfy this added burden.

25 1150. Second, for similar reasons to those discussed above in connection with Sonos's  
26 2005 system, Nourse fails to disclose or suggest the claimed "zone scene" functionality that was  
27 missing from a Squeezebox system. *Supra* Section XV.A.ix.c. Thus, even if a POSITA in 2005-  
28 06 were to modify and combine a Squeezebox system with the identified functionality of Nourse's

1 “centralized speaker system” in the manner proposed by Dr. Schonfeld, such a hypothetical system  
2 still would not achieve either the specific player-side “zone scenes” functionality required by  
3 Asserted Claim 1 of the ’885 Patent or the specific controller-side “zone scenes” functionality  
4 required by the Asserted Claims of the ’966 Patent that Dr. Schonfeld failed to analyze.

5 1151. Third, Dr. Schonfeld has failed to provide any explanation as to how a Squeezebox  
6 system would have actually been modified to combine it with the identified functionality of  
7 Nourse’s “centralized speaker system” – let alone how that alleged combination would have  
8 achieved the claimed invention.

9 1152. Fourth, I disagree that a POSITA in 2005-06 would have been motivated to modify  
10 a Squeezebox system to incorporate the identified functionality of Nourse’s “centralized speaker  
11 system.” As discussed above, a Squeezebox system already included ad-hoc “sync group”  
12 functionality that allowed Squeezebox players to be grouped together on demand for “synchronized”  
13 playback (albeit in a different way than the claimed “zone scenes” functionality), and I have not seen  
14 any evidence suggesting that a POSITA in 2005-06 would have recognized any particular problem  
15 with Squeezebox’s ad-hoc “sync group” functionality that would have led such a POSITA to consider  
16 a different mechanism for grouping Squeezebox players – let alone would have led such a POSITA to  
17 implement the identified functionality of Nourse’s “centralized speaker system.” For at least these  
18 reasons, I disagree that a POSITA in 2005-06 would have been motivated to replace the existing ad-  
19 hoc “sync group” functionality of a Squeezebox system with the identified functionality of Nourse’s  
20 “centralized speaker system,” particularly in view of the time, effort, and cost that would have been  
21 required to overhaul the grouping mechanism of a Squeezebox system.

22 1153. Nevertheless, in his Opening Report, Dr. Schonfeld offers several unsupported,  
23 conclusory theories as to why it a POSITA in 2005-06 would have allegedly found it obvious to  
24 combine Squeezebox with the identified functionality of Nourse’s “centralized speaker system” in  
25 the specific manner proposed by Dr. Schonfeld. However, in addition to the fact that Dr. Schonfeld  
26 failed to provide any analysis as to how or why the combination of Squeezebox and Nourse  
27 achieves the specific controller-side “zone scenes” functionality required by Asserted Claim 1 of  
28 the ’966 Patent, I disagree with Dr. Schonfeld’s theories for the reasons explained below.



1 1154. For instance, at paragraph 742 of his Opening Report, Dr. Schonfeld says that a  
2 POSITA would have been motivated to combine a Squeezebox system with Nourse because Nourse  
3 is “analogous to the ’885 patent” and “reasonably pertinent to the problem to be solved by the ’885  
4 patent . . . .” Schonfeld Op. Report at ¶ 742. However, these generic statements fail to establish  
5 why a POSITA in 2005-06 would have been motivated to make any modification to a Squeezebox  
6 system at all – let alone why a POSITA in 2005-06 would have been motivated to combine a  
7 Squeezebox system with Nourse in the specific manner proposed by Dr. Schonfeld.

8 1155. At paragraph 742 of his Opening Report, Dr. Schonfeld also states as follows:

9 Nourse teaches additional means for improving the user experience by allowing a  
10 user to add a playback device to multiple groups. Nourse at 3:57-4:5. It would have  
11 been desirable to allow a user to have a particular zone player join multiple groups  
12 (e.g., the kitchen and patio could be grouped for outside entertainment, and the  
13 kitchen and living room could be grouped for inside entertainment). Having a  
14 speaker join multiple groups would increase the number of customized  
15 combinations a user could configure in their home, as the Squeezebox recognizes  
16 as an important feature.

17 Schonfeld Op. Report at ¶ 742. Dr. Schonfeld fails to support this statement that “[i]t would have  
18 been desirable to allow a user to have a particular zone player join multiple groups” with any  
19 evidence, but even if a POSITA in 2005-06 were to have recognized that this functionality was  
20 “desirable,” I fail to see any evidence that this recognition would have motivated such a POSITA  
21 to replace the existing ad-hoc “sync group” functionality of a Squeezebox system with the  
22 identified functionality of Nourse – particularly given that (i) the existing ad-hoc “sync group”  
23 functionality of a Squeezebox already provided a mechanism for grouping Squeezebox plays  
24 together and (ii) a Squeezebox system had a distinctly different system architecture than Nourse’s  
25 conventional “centralized speaker system.” Moreover, even if a POSITA in 2005-06 were to have  
26 recognized that it was “desirable” to modify a Squeezebox system to “allow a user to have a  
27 particular zone player join multiple groups” as Dr. Schonfeld contends, this still would not have  
28 motivated a POSITA to combine a Squeezebox system with the identified functionality of  
Nourse’s “centralized speaker system” or otherwise modify a Squeezebox system in the specific  
ways that would have been required in order to achieve either the specific player-side “zone  
scenes” functionality required by Asserted Claim 1 of the ’885 Patent or the specific controller-

1 side “zone scenes” functionality required by the Asserted Claims of the ’966 Patent that Dr.  
2 Schonfeld failed to analyze.

3 1156. I have also seen evidence of affirmative reasons why a POSITA would not have  
4 been motivated to combine a Squeezebox system with the identified functionality of Nourse’s  
5 “centralized speaker system.” For instance, as explained above, a Squeezebox system had a  
6 distinctly different system architecture than Nourse’s conventional “centralized speaker system.”  
7 Additionally, as explained above, Nourse’s “centralized speaker system” was primary designed to  
8 serve as a public address system, whereas Sonos’s 2005 system was primary designed to serve as  
9 home audio system. Given these differences, it is my opinion that a POSITA would have been  
10 dissuaded from modifying a Squeezebox system to combine it with the identified functionality of  
11 Nourse’s “centralized speaker system.”

12 1157. Finally, because there is no evidence that a POSITA in 2005-06 would have been  
13 motivated to modify a Squeezebox system to combine it with the identified functionality of  
14 Nourse, it appears that Dr. Schonfeld has used the asserted claims as a roadmap to reach his  
15 conclusion that a POSITA would have found the claimed invention obvious based on Squeezebox  
16 in combination with Nourse, which I understand to be improper. *Compare* Schonfeld Op. Report,  
17 ¶ 255 (“It would have been desirable to allow a user to have a particular zone player join multiple  
18 groups (e.g., the kitchen and patio could be grouped for outside entertainment, and the kitchen and  
19 living room could be grouped for inside entertainment). Having a speaker join multiple groups  
20 would increase the number of customized combinations a user could configure in their home, as  
21 the Squeezebox recognizes as an important feature.”) *with* ’966 Patent, 8:62-67 (“Expanding this  
22 idea further, a Zone Scene can be set to create multiple sets of linked zones. For example, a scene  
23 creates 3 separate groups of zones, the downstairs zones would be linked together, the upstairs  
24 zones would be linked together in their own group, and the outside zones (in this case the patio)  
25 would move into a group of its own.”), 2:18-24 (“There is a need for dynamic control of the audio  
26 players as a group. With a minimum manipulation, the audio players may be readily grouped. In a  
27 traditional multi-zone audio system, the audio players have to be adjusted one at a time, resulting  
28 in an inconvenient and non-homogenous audio environment.”).

1 1158. Thus, for these reasons, it is my opinion that Asserted Claim 1 of the '966 Patent is  
2 not rendered obvious by Squeezebox in combination with Nourse.

3 (o) Squeezebox in view of Rajapakse

4 1159. In his Opening Report, Dr. Schonfeld never offers an opinion that any Asserted  
5 Claim of either the '885 Patent or the '966 Patent is rendered obvious based on Squeezebox in  
6 view of Rajapakse, but in his limitation-by-limitation obviousness analysis of Asserted Claim 1 of  
7 the '885 Patent as compared to Squeezebox, Dr. Schonfeld does include sub-sections discussing  
8 Rajapakse in connection with claim limitations 1.7 and 1.8 of Asserted Claim 1 of the '885 Patent.  
9 *Compare* Schonfeld Op. Report at ¶¶ 6, 461 and Section VII.B (summarizing Dr. Schonfeld's  
10 "Squeezebox" obviousness grounds without mentioning Rajapakse) *with id.* at ¶¶ 743-753, 788-  
11 795 (discussing Rajapakse as part of Dr. Schonfeld's obviousness analysis for Asserted Claim 1  
12 of the '885 Patent as compared to Squeezebox).

13 1160. Given that Dr. Schonfeld has not offered an opinion that any Asserted Claim of  
14 either the '885 Patent or the '966 Patent is rendered obvious based on Squeezebox in view of  
15 Rajapakse, it is not clear what relevance these sub-sections have to Dr. Schonfeld's obviousness  
16 opinions. Nevertheless, to the extent that Dr. Schonfeld later attempts to and is permitted to offer  
17 an opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on Squeezebox in  
18 view of Rajapakse, I disagree.

19 1161. As an initial matter, Dr. Schonfeld fails to set forth any bases or reasoning that  
20 would support an opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on  
21 Squeezebox in view of Rajapakse. *See* Schonfeld Op. Report at Section VII.B, ¶¶ 1001-1012.  
22 Instead, Dr. Schonfeld only discusses Rajapakse in the context of certain limitations of Asserted  
23 Claim 1 of the '885 Patent, without providing any explanation as to how that discussion applies to  
24 Asserted Claim 1 of the '966 Patent.

25 1162. Additionally, as I previously explained in my '885 Rebuttal Report, Dr. Schonfeld's  
26 discussion of Rajapakse that he includes in his analysis of Asserted Claim 1 of the '885 Patent as  
27 compared to Squeezebox suffers from a number of flaws, many of which are applicable to the  
28 Asserted Claims of the '966 Patent as well.

1 1163. First, as explained above, Dr. Schonfeld has failed to establish that Rajapakse  
2 qualifies as prior art to claim 1 of the '885 Patent. *Supra* Section XIII.I.

3 1164. Second, not only was Rajapakse cited on the face of several other Sonos patents as  
4 acknowledged by Dr. Schonfeld (Schonfeld Op. Report at ¶ 743), Rajapakse was also cited on the  
5 face of the '966 Patent. '966 Patent at 5. This shows that Rajapakse was considered by the USPTO  
6 during prosecution of the '885 Patent and that the '966 Patent (including Asserted Claim 1) was  
7 allowed to issue over Rajapakse. Since the USPTO already considered Rajapakse, I understand  
8 that Dr. Schonfeld and Google have the added burden of overcoming the deference that is due to  
9 a qualified government agency, such as the USPTO, that is presumed to have properly done its job  
10 based on its expertise in interpreting references, its understanding of the level of ordinary skill in  
11 the art, and its duty to issue only valid patents. However, it is my opinion that Dr. Schonfeld failed  
12 to satisfy this added burden.

13 1165. Third, for similar reasons to those discussed above in connection with Sonos's 2005  
14 system, Rajapakse fails to disclose or suggest the claimed "zone scene" functionality that was  
15 missing from a Squeezebox system. *Supra* Section XV.A.ix.h. Thus, even if a POSITA in 2005-  
16 06 were to modify and combine a Squeezebox system with the identified functionality of  
17 Rajapakse's system in the manner proposed by Dr. Schonfeld, such a hypothetical system still  
18 would not achieve either the specific player-side "zone scenes" functionality required by Asserted  
19 Claim 1 of the '885 Patent or the specific controller-side "zone scenes" functionality required by  
20 the Asserted Claims of the '966 Patent that Dr. Schonfeld failed to analyze.

21 1166. Fourth, Dr. Schonfeld has failed to provide any explanation as to how a Squeezebox  
22 system would have actually been modified to incorporate the identified functionality of  
23 Rajapakse's system – let alone how that alleged combination would have achieved the claimed  
24 invention.

25 1167. Fifth, I disagree that a POSITA in 2005-06 would have been motivated to modify  
26 a Squeezebox system to incorporate the identified functionality of Rajapakse's system. As  
27 discussed above, a Squeezebox system already included ad-hoc "sync group" functionality that  
28 allowed Squeezebox players to be grouped together on demand for "synchronized" playback (albeit in

1 a different way than the claimed “zone scenes” functionality), and I have not seen any evidence  
2 suggesting that a POSITA in 2005-06 would have recognized any particular problem with  
3 Squeezebox’s ad-hoc “sync group” functionality that would have led such a POSITA to consider a  
4 different mechanism for grouping Squeezebox players together – let alone would have led such a  
5 POSITA to implement the identified functionality of Rajapakse’s system. For at least these reasons,  
6 I disagree that a POSITA in 2005-06 would have been motivated to replace the existing ad-hoc “sync  
7 group” functionality of a Squeezebox system with the identified functionality of Rajapakse’s system,  
8 particularly in view of the time, effort, and cost that would have been required to overhaul the grouping  
9 mechanism of a Squeezebox system.

10 1168. In his Opening Report, Dr. Schonfeld says that a POSITA would have found it  
11 obvious to combine Squeezebox with Rajapakse for the sole reason that “Rajapakse was cited by  
12 many Sonos patents regarding speaker grouping, including patents from the same family as the  
13 ’885 patent” as well as third-party patents, including Google’s own patents, that are “closely  
14 related to the ’885 patent.” Schonfeld Op. Report at ¶ 743. However, these generic statements  
15 fail to establish why a POSITA in 2005-06 would have been motivated to make any modification  
16 to Squeezebox at all – let alone why a POSITA in 2005-06 would have been motivated to combine  
17 Squeezebox with Rajapakse in the specific manner proposed by Dr. Schonfeld.

18 1169. I have also seen evidence of affirmative reasons why a POSITA would not have  
19 been motivated to combine a Squeezebox system with the identified functionality of Rajapakse’s  
20 system. For instance, because a Squeezebox system had a different system architecture than  
21 Rajapakse’s system, it is my opinion that a POSITA would have been dissuaded from modifying  
22 a Squeezebox system to combine it with the identified functionality of Rajapakse’s system.

23 1170. Finally, because there is no evidence that a POSITA in 2005-06 would have been  
24 motivated to modify Squeezebox to combine it with the identified functionality of Rajapakse, it  
25 appears that Dr. Schonfeld has used the asserted claims as a roadmap to reach his conclusion that  
26 a POSITA would have found the claimed invention obvious based on Squeezebox in combination  
27 with Rajapakse, which I understand to be improper. *See* Schonfeld Op. Report, ¶ 743 (“Rajapakse  
28 was cited by many Sonos patents regarding speaker grouping, including patents from the same

1 family as the '885 patent, indicating that persons of skill in the art recognized that Rajapakse was  
2 highly relevant to the claimed features.”).

3 1171. Thus, for these reasons, it is my opinion that Asserted Claim 1 of the '966 Patent  
4 is not rendered obvious by Squeezebox in combination with Rajapakse.

5 **(p) Squeezebox in view of Lindemann**

6 1172. In his Opening Report, Dr. Schonfeld never offers an opinion that any Asserted  
7 Claim of either the '885 Patent or the '966 Patent is rendered obvious based on Squeezebox in  
8 view of Lindemann, but in his limitation-by-limitation obviousness analysis of Asserted Claim 1  
9 of the '885 Patent as compared to Squeezebox, Dr. Schonfeld does include sub-sections discussing  
10 Lindemann in connection with claim limitations 1.7 and 1.8 of Asserted Claim 1 of the '885 Patent.  
11 *Compare* Schonfeld Op. Report at ¶¶ 6, 461 and Section VII.B (summarizing Dr. Schonfeld's  
12 “Squeezebox” obviousness grounds without mentioning Lindemann) *with id.* at ¶¶ 759-760, 796  
13 (discussing Lindemann as part of Dr. Schonfeld's obviousness analysis for Asserted Claim 1 of  
14 the '885 Patent as compared to Squeezebox).

15 1173. Given that Dr. Schonfeld has not offered an opinion that any Asserted Claim of  
16 either the '885 Patent or the '966 Patent is rendered obvious based on Squeezebox in view of  
17 Lindemann, it is not clear what relevance these sub-sections have to Dr. Schonfeld's obviousness  
18 opinions. Nevertheless, to the extent that Dr. Schonfeld later attempts to and is permitted to offer  
19 an opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on Squeezebox in  
20 view of Lindemann, I disagree.

21 1174. As an initial matter, Dr. Schonfeld fails to set forth any bases or reasoning that  
22 would support an opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on  
23 Squeezebox in view of Lindemann. *See* Schonfeld Op. Report at Section VII.B, ¶¶ 1001-1012.  
24 Instead, Dr. Schonfeld only discusses Lindemann in the context of certain limitations of Asserted  
25 Claim 1 of the '885 Patent, without providing any explanation as to how that discussion applies to  
26 Asserted Claim 1 of the '966 Patent.

27 1175. Additionally, as I previously explained in my '885 Rebuttal Report, Dr. Schonfeld's  
28 discussion of Lindemann that he includes in his analysis of Asserted Claim 1 of the '885 Patent as

1 compared to Squeezebox suffers from a number of flaws, many of which are applicable to the  
2 Asserted Claims of the '966 Patent as well.

3 1176. First, Lindemann was cited on the face of the '966 Patent, which shows that  
4 Lindemann was considered by the USPTO during prosecution of the '885 Patent and that the '966  
5 Patent (including Asserted Claim 1) was allowed to issue over Lindemann. '966 Patent at 7. Since  
6 the USPTO already considered Lindemann, I understand that Dr. Schonfeld and Google have the  
7 added burden of overcoming the deference that is due to a qualified government agency, such as  
8 the USPTO, that is presumed to have properly done its job based on its expertise in interpreting  
9 references, its understanding of the level of ordinary skill in the art, and its duty to issue only valid  
10 patents. However, it is my opinion that Dr. Schonfeld failed to satisfy this added burden.

11 1177. Second, for similar reasons to those discussed above in connection with Sonos's  
12 2005 system, Lindemann fails to disclose or suggest the claimed "zone scene" functionality that  
13 was missing from a Squeezebox system. *Supra* Section XV.A.ix.i. Thus, even if a POSITA in  
14 2005-06 were to modify and combine a Squeezebox system with the identified functionality of  
15 Lindemann's system in the manner proposed by Dr. Schonfeld, such a hypothetical system still  
16 would not achieve either the specific player-side "zone scenes" functionality required by Asserted  
17 Claim 1 of the '885 Patent or the specific controller-side "zone scenes" functionality required by  
18 the Asserted Claims of the '966 Patent that Dr. Schonfeld failed to analyze.

19 1178. Third, Dr. Schonfeld has failed to provide any explanation as to how a Squeezebox  
20 system would have actually been modified to combine it with the identified functionality of  
21 Lindemann's system – let alone how that alleged combination would have achieved the claimed  
22 invention.

23 1179. Fourth, I disagree that a POSITA in 2005-06 would have been motivated to modify  
24 a Squeezebox system to incorporate the identified functionality of Lindemann's system. As  
25 discussed above, a Squeezebox system already included ad-hoc "sync group" functionality that  
26 allowed Squeezebox players to be grouped together on demand for "synchronized" playback (albeit in  
27 a different way than the claimed "zone scenes" functionality), and I have not seen any evidence  
28 suggesting that a POSITA in 2005-06 would have recognized any particular problem with



1 Squeezebox's ad-hoc "sync group" functionality that would have led such a POSITA to consider a  
2 different mechanism for grouping Squeezebox players together – let alone would have led such a  
3 POSITA to implement the identified functionality of Rajapakse's system. For at least these reasons,  
4 I disagree that a POSITA in 2005-06 would have been motivated to replace the existing ad-hoc "sync  
5 group" functionality of a Squeezebox system with the identified functionality of Lindemann's system,  
6 particularly in view of the time, effort, and cost that would have been required to overhaul the grouping  
7 mechanism of a Squeezebox system.

8 1180. In his Opening Report, Dr. Schonfeld says that a POSITA would have found it  
9 obvious combine Squeezebox with Lindemann because "Lindemann was cited by many digital  
10 speaker patents regarding speaker grouping" and "Lindemann and the Squeezebox are both in the  
11 same field of endeavor." Schonfeld Op. Report at ¶ 759. However, these generic statements fail  
12 to establish why a POSITA in 2005-06 would have been motivated to make any modification to a  
13 Squeezebox system at all – let alone why a POSITA in 2005-06 would have been motivated to  
14 combine a Squeezebox system with Lindemann in the specific manner proposed by Dr. Schonfeld.

15 1181. I have also seen evidence of affirmative reasons why a POSITA would not have  
16 been motivated to combine Squeezebox with the identified functionality of Lindemann. For  
17 instance, because a Squeezebox system had a different system architecture than Lindemann's  
18 "digital wireless loudspeaker system," it is my opinion that a POSITA would have been dissuaded  
19 from modifying a Squeezebox system to combine it with the identified functionality of Lindemann.

20 1182. Finally, because there is no evidence that a POSITA in 2005-06 would have been  
21 motivated to modify Squeezebox to combine it with the identified functionality of Lindemann, it  
22 appears that Dr. Schonfeld has used the asserted claims as a roadmap to reach his conclusion that  
23 a POSITA would have found the claimed invention obvious based on Squeezebox in combination  
24 with Lindemann, which I understand to be improper. *See* Schonfeld Op. Report at ¶571  
25 ("Lindemann was cited by many digital speaker patents regarding speaker grouping, including  
26 patents from the same family as the '885 patent, indicating that persons of skill in the art recognized  
27 that Lindemann was highly relevant to the claimed features.").

28 1183. Thus, for these reasons, it is my opinion that claim 1 of the '885 Patent is not

rendered obvious by Squeezebox in combination with Lindemann.

**xi. Summary**

1184. As discussed above, there are a number of different limitations of Asserted Claim 1 of the '966 Patent that are neither disclosed by Squeezebox nor rendered obvious by Squeezebox either in view of the general knowledge of a POSITA, Sonos's 2005 system, the Sonos Forums, Bose Lifestyle, Millington, or any of the other secondary references identified by Dr. Schonfeld. Any one of these claim limitations serves as a separate basis for my opinion that Asserted Claim 1 of the '966 Patent is not rendered obvious by Squeezebox in view of the general knowledge of a POSITA, Sonos's 2005 system, the Sonos Forums, Bose Lifestyle, Millington, or any of the other secondary references identified by Dr. Schonfeld, and when taken collectively, these claim limitations provide even further support for my opinion that Asserted Claim 1 of the '966 Patent is not rendered obvious by Squeezebox in view of the general knowledge of a POSITA, Sonos's 2005 system, the Sonos Forums, Bose Lifestyle, Millington, or any of the other secondary references identified by Dr. Schonfeld.

1185. Further, I note that Dr. Schonfeld appears to have only performed his obviousness analysis for claim 1 of the '885 Patent on a limitation-by-limitation basis, and has not performed any analysis or offered any opinions as to whether claim 1 of the '885 Patent as a whole would have been obviousness, which I understand to be improper.

1186. Further yet, I note that Dr. Schonfeld has only offered obviousness opinions with respect to Squeezebox as combined with one other reference, and has not performed any analysis or offered any opinions as to whether a POSITA in 2005-06 would have been motivated to modify and combine Squeezebox with multiple different references.

1187. Accordingly, for all of the reasons explained above, it is my opinion that Asserted Claim 1 of the '966 Patent is not rendered obvious by Squeezebox in view of the general knowledge of a POSITA, Sonos's 2005 system, the Sonos Forums, Bose Lifestyle, Millington, or any of the other secondary references identified by Dr. Schonfeld.

**2. Asserted Claim 2 is Not Rendered Obvious Based on Squeezebox**

1188. Asserted Claim 2 of the '966 Patent depends from Asserted Claim 1 of the '966

Patent and requires the following:

[2.0] The computing device of claim 1, further comprising program instructions stored on the non-transitory computer-readable medium that, when executed by the one or more processors, cause the computing device to perform functions comprising:

[2.1] while the first zone player is configured to coordinate with at least the second zone player to play back media in synchrony with at least the second zone player, receiving a fourth request to invoke the second zone scene; and

[2.2] based on the fourth request, causing the first zone player to (a) cease to operate in accordance with the first predefined grouping of zone players such that the first zone player is no longer configured to coordinate with at least the second zone player to output media in synchrony with output of media by at least the second zone player and (b) begin to operate in accordance with the second predefined grouping of zone players such that the first zone player is configured to coordinate with at least the third zone player to output media in synchrony with output of media by at least the third zone player.

1189. Thus, Asserted Claim 2 of the '966 Patent requires the claimed "computing device" to be programmed with functionality for invoking the claimed "second zone scene" at a time when the "first zone scene" is currently invoked and the first and second "zone players" are "configured to coordinate" with one another for synchronous playback in accordance with the "first zone scene."

1190. In my opinion, Asserted Claim 2 of the '966 Patent is not rendered obvious based on Squeezebox in view of the general knowledge of a POSITA, Sonos's 2005 system, the Sonos Forums, Bose Lifestyle, Millington, or any of the other secondary references identified by Dr. Schonfeld.

1191. Indeed, because Asserted Claim 2 of the '966 Patent depends from Asserted Claim 1 of the '966 Patent, it is my opinion that Asserted Claim 2 of the '966 Patent is not rendered obvious by Squeezebox in view of the general knowledge of a POSITA, Sonos's 2005 system, the Sonos Forums, Bose Lifestyle, Millington, or any of the other secondary references identified by Dr. Schonfeld for at least the same reasons discussed above in connection with Asserted Claim 1 of the '966 Patent.

1192. Moreover, it is my opinion that the additional limitations of Asserted Claim 2 of the '966 Patent are neither disclosed by Squeezebox nor rendered obvious by Squeezebox in view of the general knowledge of a POSITA, Sonos's 2005 system, the Sonos Forums, Bose Lifestyle,

1 Millington, or any of the other secondary references identified by Dr. Schonfeld for similar reasons  
2 to those discussed above in connection with limitations 1.10-1.11, which are directed to  
3 functionality for invoking the claimed “first zone scene.” For example, as discussed above, a  
4 Squeezebox “sync group” is not a “zone scene,” and a computer installed with SlimServer software  
5 did not have any functionality capability for receiving a “request to invoke” a “zone scene” or  
6 causing Squeezebox players to operate in accordance with a “zone scene” – let alone the functional  
7 capability for performing these operations with respect to two different, overlapping “zone scenes”  
8 – nor would it have been obvious to add this functionality to a Squeezebox system. And for similar  
9 reasons, a computer installed with SlimServer software did not have any functionality capability  
10 for receiving a “request to invoke” a “second zone scene” or causing Squeezebox players to operate  
11 in accordance with a “second zone scene” at a time when a “first zone scene” having a common  
12 member is currently invoked, nor would it have been obvious to add this functionality to Sonos’s  
13 2005 system.

14 1193. Despite these clear deficiencies, Dr. Schonfeld nevertheless opines that Asserted  
15 Claim 2 of the ’966 Patent rendered obvious by Squeezebox in view of the general knowledge of  
16 a POSITA, Sonos’s 2005 system, the Sonos Forums, Bose Lifestyle, or Millington. *See* Schonfeld  
17 Op. Report at ¶ 1013. However, I find Dr. Schonfeld’s opinion regarding Squeezebox and  
18 Asserted Claim 2 of the ’966 Patent to be flawed for several reasons.

19 1194. As an initial matter, the entirety of Dr. Schonfeld’s discussion regarding  
20 Squeezebox and Asserted Claim 2 of the ’966 Patent is shown in the screenshot below from Dr.  
21  
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Schonfeld's Opening Report:

**15. Claim 2 Is Obvious Based On Squeezebox in view of General knowledge of a POSITA, the Sonos System, the Sonos Forums, the Bose Lifestyle, or Millington.**

- (i) *Limitation 2.1 The computing device of claim 1, further comprising program instructions stored on the non-transitory computer-readable medium that, when executed by the one or more processors, cause the computing device to perform functions comprising:*
- (ii) *Limitation 2.2 while the first zone player is configured to coordinate with at least the second zone player to play back media in synchrony with at least the second zone player, receiving a fourth request to invoke the second zone scene; and*
- (iii) *Limitation 2.3 based on the fourth request, causing the first zone player to (a) cease to operate in accordance with the first predefined grouping of zone players such that the first zone player is no longer configured to coordinate with at least the second zone player to output media in synchrony with output of media by at least the second zone player and (b) begin to operate in accordance with the second predefined grouping of zone players such that the first zone player is configured to coordinate with at least the third zone player to output media in synchrony with output of media by at least the third zone player.*

1013. *See '966 claim 1 supra.* As discussed above, the Sonos system and the identified obviousness combinations disclosed the system in claim 1. Those disclosures included the ability to receive a third request to “invoke” the first zone scene. For the same reasons, that system also discloses the ability to “invoke” a different (second) zone scene. Even if the Sonos system did not disclose or render obvious this requirement, the mere addition of one additional transition in a system that already permits this same transition for different “zone scenes,” as described *supra*, is would have been obvious, as it is merely repeating the same steps using the same functionalities with a different “zone scene.”.

1195. This shows that Dr. Schonfeld is primarily relying on his discussion of Asserted Claim 1 of his '966 Patent, but as explained above, Dr. Schonfeld has not set forth any analysis for Asserted Claim 1 of his '966 Patent; instead, Dr. Schonfeld relies on his prior discussion of

1 Squeezebox in the context of certain claim limitations of the '885 Patent. However, the Asserted  
2 Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the  
3 '885 Patent (a “computing device” configured to “serv[e] as a controller” as opposed to a “zone  
4 player”), the Asserted Claims of the '966 Patent use different claim language than Asserted Claim  
5 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior  
6 discussion of Squeezebox in the context of the claim limitations of Asserted Claim 1 of the '885  
7 Patent applies to the Asserted Claims of the '966 Patent. For these reasons, I disagree that the Dr.  
8 Schonfeld’s discussion of Asserted Claim 2 of the '966 Patent amounts to a detailed and complete  
9 statement of all opinions to be expressed and the basis and reasons therefor, which I understand to  
10 be the governing standard for expert reports, and that barebones discussion has prejudiced my  
11 ability to fully discern, assess, and respond to his opinions regarding Asserted Claim 2 of the '966  
12 Patent.<sup>47</sup>

13 1196. With that said, as I have discussed above in Section XV.B.1 as well as in my '885  
14 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld’s analysis of  
15 Squeezebox in the context of Asserted Claim 1 of the '885 Patent suffers from a number of flaws,  
16 many of which are applicable to Asserted Claim 2 of the '966 Patent as well – including that his  
17 analysis is premised on both an incorrect interpretation of what is required to qualify as a “zone  
18 scene,” an incorrect interpretation of what it means to “invoke” a “zone scene,” and an inaccurate  
19 and misleading characterization of Squeezebox functionality and the evidence related thereto.

20 1197. The other portion of Dr. Schonfeld’s section on Asserted Claim 2 of the '966 Patent  
21 appears to be a verbatim copy of language from paragraph 979 from the section of Dr. Schonfeld’s  
22 Opening Report related to Sonos’s 2005 system, which I already addressed above. I fail to see  
23 how this paragraph discussing Sonos’s 2005 system has any relevance to Dr. Schonfeld’s  
24 “Squeezebox” opinions, and it appears to me that Dr. Schonfeld’s inclusion of this language in his  
25 section directed to Squeezebox may have been a copy/paste error, but in any event I disagree with  
26 this paragraph from the same reasons explained above.

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27 <sup>47</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.



1 1198. Thus, nothing in Dr. Schonfeld's Opening Report alters my opinion that a computer  
2 installed with SlimServer software did not have the functional capability required by Asserted  
3 Claim 2 of the '966 Patent, nor would it have been obvious to add this functionality to a  
4 Squeezebox system.

5 **3. Asserted Claim 4 is Not Rendered Obvious Based on Squeezebox**

6 1199. Asserted Claim 4 of the '966 Patent depends from claim 3 of the '966 Patent, which  
7 in turn depends from Asserted Claim 1 of the '966 Patent. Claims 3 and 4 of the '966 Patent  
8 require as follows:

9 [3.0] The computing device of claim 1, [3.1] wherein causing storage of the first  
10 zone scene comprises causing storage of the first zone scene at a location other than  
11 the computing device, and [3.2] wherein causing storage of the second zone scene  
12 comprises causing storage of the second zone scene at the location other than the  
13 computing device.

14 [4.0] The computing device of claim 3, [4.1] wherein the location other than the  
15 computing device comprises a zone player of the first predefined grouping of zone  
16 players.

17 1200. Thus, Asserted Claim 4 of the '966 Patent requires the claimed "computing device"  
18 to cause the claimed "zone scenes" to be stored at a "zone player" within the "predefined grouping"  
19 of the "first zone scene," such as the "first zone player" that is included in both the first and second  
20 "zone scenes."

21 1201. In my opinion, Asserted Claim 4 of the '966 Patent is not rendered obvious based  
22 on Squeezebox in view of the general knowledge of a POSITA, Sonos's 2005 system, the Sonos  
23 Forums, Bose Lifestyle, Millington, or any of the other secondary references identified by Dr.  
24 Schonfeld.

25 1202. Indeed, because Asserted Claim 4 of the '966 Patent depends from Asserted Claim  
26 1 of the '966 Patent (through claim 3), it is my opinion that Asserted Claim 4 of the '966 Patent is  
27 not rendered obvious by Squeezebox in view of the general knowledge of a POSITA, Sonos's  
28 2005 system, the Sonos Forums, Bose Lifestyle, Millington, or any of the other secondary  
references identified by Dr. Schonfeld for at least the same reasons discussed above in connection  
with Asserted Claim 1 of the '966 Patent.



1           1203. Moreover, it is my opinion that the additional limitations of Asserted Claim 4 of  
2 the '966 Patent are neither disclosed by Squeezebox nor rendered obvious by Squeezebox in view  
3 of the general knowledge of a POSITA, Sonos's 2005 system, the Sonos Forums, Bose Lifestyle,  
4 Millington, or any of the other secondary references identified by Dr. Schonfeld for similar reasons  
5 to those discussed above in connection with limitations 1.6 and 1.8, which require the claimed  
6 "computing device" to have the functional capability to cause storage of the "first zone scene" and  
7 the "second zone scene." For example, as discussed above, a Squeezebox "sync group" is not a  
8 "zone scene," and a computer installed with SlimServer software did not have any functionality  
9 capability for causing storage of a "zone scene" – let alone the functional capability for causing  
10 storage of two different, overlapping "zone scenes" – nor would it have been obvious to add this  
11 functionality to a Squeezebox system. And for similar reasons, a computer installed with  
12 SlimServer software did not have any functionality capability for causing a "zone scene" to be  
13 stored at a Squeezebox player, nor would it have been obvious to add this functionality to a  
14 Squeezebox system.

15           1204. Further even setting aside the fundamental differences between a Squeezebox "sync  
16 group" and a "zone scene," a computer installed with the SlimServer software would not "caus[e]  
17 storage" of a "sync group" on a Squeezebox player in the "sync group." Instead, as I have  
18 explained above, the evidence I have reviewed shows that a "sync group" was stored on and  
19 exclusively maintained by the computer installed with the SlimServer software. *See, e.g.,*  
20 Schonfeld Op. Report at ¶ 366 ("The *SlimServer* server represents sync groups internally using the  
21 'master', 'slaves', and 'syncgroupid' properties for a client (player)."), ¶ 368 ("The *SlimServer*  
22 persists the membership of a sync group by storing the definition of the syncgroupid property for  
23 each group member into the *SlimServer's* preferences file."); Slim/Player/Sync.pm:sync(),  
24 Sync.pm:unsync(), Sync.pm:saveSyncPrefs(); Slim/Utils/Prefs.pm;  
25 Slim/Server/Squeezebox.pm:stream() (showing that the exact same 'strm' command was sent to  
26 every member of a "sync group" and that the 'strm' command did not include any indication that  
27 a Squeezebox player was part of a "sync group"); GOOG-SONOS-NDCA-00108095-588 GOOG-  
28 SONOS-NDCA-00108157 (explaining that the SlimServer software "powers Squeezebox"),

1 GOOG-SONOS-NDCA-00108162 (same), GOOG-SONOS-NDCA-00108181 (explaining that  
2 “[t]he Slimserver controls the audio buffer and playback on all the players that are synchronized  
3 together”).

4 1205. Despite these clear deficiencies, Dr. Schonfeld nevertheless opines that intervening  
5 claim 3 and Asserted Claim 4 of the ’966 Patent are both rendered obvious by Squeezebox in view  
6 of the general knowledge of a POSITA, Sonos’s 2005 system, the Sonos Forums, Bose Lifestyle,  
7 or Millington. *See* Schonfeld Op. Report at ¶¶ 1014-1015. However, I find Dr. Schonfeld’s  
8 opinion regarding Squeezebox and claims 3-4 of the ’966 Patent to be flawed for several reasons.

9 1206. As an initial matter, the entirety of Dr. Schonfeld’s discussion regarding  
10 Squeezebox and claims 3-4 of the ’966 Patent is shown in the screenshots below from Dr.  
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Schonfeld's Opening Report:

**16. Claim 3 is Obvious Based On Squeezebox in view of General knowledge of a POSITA, the Sonos System, the Sonos Forums, the Bose Lifestyle, or Millington.**

- (i) *3. The computing device of claim 1, wherein causing storage of the first zone scene comprises causing storage of the first zone scene at a location other than the computing device, and wherein causing storage of the second zone scene comprises causing storage of the second zone scene at the location other than the computing device.*

1014. *See* '966 claim 1 *supra*. As described therein, the claimed "zone scene" is transmitted to and stored at the zone player, which is "a location other than the computing device." Furthermore, the decision of where to store the zone scene, which consists of a finite list of options, is obvious. The zone scene may be stored at the zone players, at the computing device, or on a server. Because the prior art system is networked, there is very little if any effect of the location of storage on the efficacy and effectiveness of the prior art solution.

**17. Claim 4 Is Obvious Based On Squeezebox in view of General knowledge of a POSITA, the Sonos System, the Sonos Forums, the Bose Lifestyle, or Millington.**

- (i) *4. The computing device of claim 3, wherein the location other than the computing device comprises a zone player of the first predefined grouping of zone players.*

1015. *See* '966 claim 3 *supra*.

1207. This shows that Dr. Schonfeld is primarily relying on his discussion of Asserted Claim 1 of his '966 Patent, but as explained above, Dr. Schonfeld has not set forth any analysis for Asserted Claim 1 of his '966 Patent; instead, Dr. Schonfeld relies on his prior discussion of Squeezebox in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a "zone player"), the Asserted Claims of the '966 Patent use different claim language than Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior

1 discussion of Squeezebox in the context of the claim limitations of Asserted Claim 1 of the '885  
2 Patent applies to the Asserted Claims of the '966 Patent. For these reasons, I disagree that the Dr.  
3 Schonfeld's discussion of Asserted Claim 4 of the '966 Patent amounts to a detailed and complete  
4 statement of all opinions to be expressed and the basis and reasons therefor, which I understand to  
5 be the governing standard for expert reports, and that barebones discussion has prejudiced my  
6 ability to fully discern, assess, and respond to his opinions regarding Asserted Claim 4 of the '966  
7 Patent.<sup>48</sup>

8 1208. With that said, as I have discussed above in Section XV.B.1 as well as in my '885  
9 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's analysis of  
10 Squeezebox in the context of Asserted Claim 1 of the '885 Patent suffers from a number of flaws,  
11 many of which are applicable to Asserted Claim 4 of the '966 Patent as well – including that his  
12 analysis is premised on both an incorrect interpretation of what is required to qualify as a “zone  
13 scene” and an inaccurate and misleading characterization of Squeezebox functionality and the  
14 evidence related thereto.

15 1209. The other portion of Dr. Schonfeld's section on intervening claim 3 of the '966  
16 Patent appears to be a verbatim copy of paragraph 981 from the section of Dr. Schonfeld's Opening  
17 Report related to Sonos's 2005 system, which I already addressed above in the context of Dr.  
18 Schonfeld's “Sonos System” theories and also incorporate here by reference.

19 1210. Thus, nothing in Dr. Schonfeld's Opening Report alters my opinion a computer  
20 installed with SlimServer software did not have the functional capability required by Asserted  
21 Claim 4 of the '966 Patent, nor would it have been obvious to add this functionality to a  
22 Squeezebox system.

23 **4. Asserted Claim 6 is Not Rendered Obvious Based on Squeezebox**

24 1211. Asserted Claim 6 of the '966 Patent depends from Asserted Claim 1 of the '966  
25 Patent and requires the following:

26  
27  
28 <sup>48</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
in his Opening Report, I expressly reserve my right to respond.

1 [6.0] The computing device of claim 1, [6.1] wherein the first predefined grouping of  
2 zone players does not include the third zone player, and [6.2] wherein the second  
3 predefined grouping of zone players does not include the second zone player.

4 1212. Thus, Asserted Claim 6 of the '966 Patent requires the claimed "computing device"  
5 to be programmed with functionality for creating two overlapping "zone scenes" where each "zone  
6 scene" includes at least one "zone player" that is not included in the other "zone scene."

7 1213. In my opinion, Asserted Claim 6 of the '966 Patent is not rendered obvious based  
8 on Squeezebox in view of the general knowledge of a POSITA, Sonos's 2005 system, the Sonos  
9 Forums, Bose Lifestyle, Millington, or any of the other secondary references identified by Dr.  
10 Schonfeld.

11 1214. Indeed, because Asserted Claim 6 of the '966 Patent depends from Asserted Claim  
12 1 of the '966 Patent, it is my opinion that Asserted Claim 6 of the '966 Patent is not rendered  
13 obvious by Squeezebox in view of the general knowledge of a POSITA, Sonos's 2005 system, the  
14 Sonos Forums, Bose Lifestyle, Millington, or any of the other secondary references identified by  
15 Dr. Schonfeld for at least the same reasons discussed above in connection with Asserted Claim 1  
16 of the '966 Patent.

17 1215. Moreover, it is my opinion that the additional limitations of Asserted Claim 6 of  
18 the '966 Patent are neither disclosed by Squeezebox nor rendered obvious by Squeezebox in view  
19 of the general knowledge of a POSITA, Sonos's 2005 system, the Sonos Forums, Bose Lifestyle,  
20 Millington, or any of the other secondary references identified by Dr. Schonfeld for similar reasons  
21 to those discussed above in connection with Asserted Claim 1 of the '966 Patent. For example, as  
22 discussed above, a Squeezebox "sync group" is not a "zone scene," and a computer installed with  
23 SlimServer software did not have any functionality capability for creating a "zone scene" – let  
24 alone the functional capability for creating two different, overlapping "zone scenes" – nor would  
25 it have been obvious to add this functionality to a Squeezebox system. And for similar reasons, a  
26 computer installed with SlimServer software did not have any functionality capability for creating  
27 two overlapping "zone scenes" where each "zone scene" includes at least one "zone player" that  
28 is not included in the other "zone scene," nor would it have been obvious to add this functionality  
to a Squeezebox system.

1216. Despite these clear deficiencies, Dr. Schonfeld nevertheless opines that Asserted Claim 6 of the '966 Patent rendered obvious by Squeezebox in view of the general knowledge of a POSITA, Sonos's 2005 system, the Sonos Forums, Bose Lifestyle, or Millington. *See* Schonfeld Op. Report at ¶ 1016. However, I find Dr. Schonfeld's opinion regarding Squeezebox and Asserted Claim 6 of the '966 Patent to be flawed for several reasons.

1217. As an initial matter, the entirety of Dr. Schonfeld's discussion regarding Squeezebox and Asserted Claim 6 of the '966 Patent is shown in the screenshot below from Dr. Schonfeld's Opening Report:

**18. Claim 6 Is Obvious Based On Squeezebox in view of General knowledge of a POSITA, the Sonos System, the Sonos Forums, the Bose Lifestyle, or Millington.**

- (i) *6. The computing device of claim 1, wherein the first predefined grouping of zone players does not include the third zone player, and wherein the second predefined grouping of zone players does not include the second zone player.*

1016. *See* '966 claim 1 *supra*. As discussed *supra*, claim 1 is disclosed or rendered obvious at least through the disclosure of non-overlapping zone scenes in the prior art.

1218. This shows that Dr. Schonfeld is relying exclusively on his discussion of Asserted Claim 1 of his '966 Patent, but as explained above, Dr. Schonfeld has not set forth any analysis for Asserted Claim 1 of his '966 Patent; instead, Dr. Schonfeld relies on his prior discussion of Squeezebox in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a "zone player"), the Asserted Claims of the '966 Patent use different claim language than Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion of Squeezebox in the context of the claim limitations of Asserted Claim 1 of the '885 Patent applies to the Asserted Claims of the '966 Patent. For these reasons, I disagree that the Dr. Schonfeld's discussion of Asserted Claim 6 of the '966 Patent amounts to a detailed and complete

statement of all opinions to be expressed and the basis and reasons therefor, which I understand to be the governing standard for expert reports, and that barebones discussion has prejudiced my ability to fully discern, assess, and respond to his opinions regarding Asserted Claim 6 of the '966 Patent.<sup>49</sup>

1219. With that said, as I have discussed above in Section XV.B.1 as well as in my '885 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's analysis of Squeezebox in the context of Asserted Claim 1 of the '885 Patent suffers from a number of flaws, many of which are applicable to Asserted Claim 6 of the '966 Patent as well – including that his analysis is premised on both an incorrect interpretation of what is required to qualify as a “zone scene” and an inaccurate and misleading characterization of Squeezebox functionality and the evidence related thereto.

1220. Thus, nothing in Dr. Schonfeld's Opening Report alters my opinion that the a computer installed with SlimServer software did not have the functional capability required by Asserted Claim 6 of the '966 Patent, nor would it have been obvious to add this functionality to a Squeezebox system.

**5. Asserted Claim 8 is Not Rendered Obvious Based on Squeezebox**

1221. Asserted Claim 8 of the '966 Patent depends from Asserted Claim 1 of the '966 Patent and requires the following:

1222. Asserted Claim 6 of the '966 Patent depends from Asserted Claim 1 of the '966 Patent and requires the following:

**[8.0]** The computing device of claim 1, **[8.1]** wherein receiving the first request comprises receiving a first set of one or more inputs via a user interface of the computing device, **[8.2]** wherein receiving the second request comprises receiving a second set of one or more inputs via the user interface, and **[8.3]** wherein receiving the third request comprises receiving a third set of one or more inputs via the user interface.

1223. Thus, Asserted Claim 8 of the '966 Patent requires the claimed “computing device” to be programmed with the functional capability to receive “requests” for creating and invoking “zone scenes” that take the form of “one or more inputs” received “via a user interface.”

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<sup>49</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies in his Opening Report, I expressly reserve my right to respond.



1           1224. In my opinion, Asserted Claim 8 of the '966 Patent is not rendered obvious based  
2 on Squeezebox in view of the general knowledge of a POSITA, Sonos's 2005 system, the Sonos  
3 Forums, Bose Lifestyle, Millington, or any of the other secondary references identified by Dr.  
4 Schonfeld.

5           1225. Indeed, because Asserted Claim 8 of the '966 Patent depends from Asserted Claim  
6 1 of the '966 Patent, it is my opinion that Asserted Claim 8 of the '966 Patent is not rendered  
7 obvious by Squeezebox in view of the general knowledge of a POSITA, Sonos's 2005 system, the  
8 Sonos Forums, Bose Lifestyle, Millington, or any of the other secondary references identified by  
9 Dr. Schonfeld for at least the same reasons discussed above in connection with Asserted Claim 1  
10 of the '966 Patent.

11           1226. Moreover, it is my opinion that the additional limitations of Asserted Claim 8 of  
12 the '966 Patent are neither disclosed by Squeezebox nor rendered obvious by Squeezebox in view  
13 of the general knowledge of a POSITA, Sonos's 2005 system, the Sonos Forums, Bose Lifestyle,  
14 Millington, or any of the other secondary references identified by Dr. Schonfeld for similar reasons  
15 to those discussed above in connection with Asserted Claim 1 of the '966 Patent. For example, as  
16 discussed above, a Squeezebox "sync group" is not a "zone scene," and a computer installed with  
17 SlimServer software did not have any functionality capability for receiving requests to create or  
18 invoke a "zone scene" – let alone the functional capability for receiving requests to create two  
19 different, overlapping "zone scenes" and then receiving a request to invoke one of the "zone  
20 scenes" – nor would it have been obvious to add this functionality to a Squeezebox system. And  
21 for similar reasons, a computer installed with SlimServer software did not have any functionality  
22 capability for receiving requests to create or invoke "zone scenes" that take the form of "one or  
23 more inputs" received "via a user interface," nor would it have been obvious to add this  
24 functionality to a Squeezebox system.

25           1227. Despite these clear deficiencies, Dr. Schonfeld nevertheless opines that Asserted  
26 Claim 8 of the '966 Patent rendered obvious by Squeezebox in view of the general knowledge of  
27 a POSITA, Sonos's 2005 system, the Sonos Forums, Bose Lifestyle, or Millington. *See* Schonfeld  
28 Op. Report at ¶ 1017. However, I find Dr. Schonfeld's opinion regarding Squeezebox and

1 Asserted Claim 8 of the '966 Patent to be flawed for several reasons.

2 1228. As an initial matter, the entirety of Dr. Schonfeld's discussion regarding  
3 Squeezebox and Asserted Claim 8 of the '966 Patent is shown in the screenshot below from Dr.  
4 Schonfeld's Opening Report:

5 **19. Claim 8 Is Obvious Based On Squeezebox in view of General**  
6 **knowledge of a POSITA, the Sonos System, the Sonos Forums, the Bose**  
7 **Lifestyle, or Millington.**

- 8  
9 (i) *8. The computing device of claim 1, wherein receiving the first*  
10 *request comprises receiving a first set of one or more inputs via a*  
11 *user interface of the computing device, wherein receiving the second*  
12 *request comprises receiving a second set of one or more inputs via*  
13 *the user interface, and wherein receiving the third request*  
14 *comprises receiving a third set of one or more inputs via the user*  
15 *interface.*

16 1017. *See '966 claim 1 supra.*

17 1229. This shows that Dr. Schonfeld is relying exclusively on his discussion of Asserted  
18 Claim 1 of his '966 Patent, but as explained above, Dr. Schonfeld has not set forth any analysis  
19 for Asserted Claim 1 of his '966 Patent; instead, Dr. Schonfeld relies on his prior discussion of  
20 Squeezebox in the context of certain claim limitations of the '885 Patent. However, the Asserted  
21 Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the  
22 '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a "zone  
23 player"), the Asserted Claims of the '966 Patent use different claim language than Asserted Claim  
24 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior  
25 discussion of Squeezebox in the context of the claim limitations of Asserted Claim 1 of the '885  
26 Patent applies to the Asserted Claims of the '966 Patent. For these reasons, I disagree that the Dr.  
27 Schonfeld's discussion of Asserted Claim 8 of the '966 Patent amounts to a detailed and complete  
28 statement of all opinions to be expressed and the basis and reasons therefor, which I understand to  
be the governing standard for expert reports, and that barebones discussion has prejudiced my  
ability to fully discern, assess, and respond to his opinions regarding Asserted Claim 6 of the '966

Patent.<sup>50</sup>

1230. With that said, as I have discussed above in Section XV.B.1 as well as in my '885 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's analysis of Squeezebox in the context of Asserted Claim 1 of the '885 Patent suffers from a number of flaws, many of which are applicable to Asserted Claim 8 of the '966 Patent as well – including that his analysis is premised on both an incorrect interpretation of what is required to qualify as a “zone scene” and an inaccurate and misleading characterization of Sonos's 2005 system functionality and the evidence related thereto.

1231. Thus, nothing in Dr. Schonfeld's Opening Report alters my opinion that a computer installed with SlimServer software did not have the functional capability required by Asserted Claim 8 of the '966 Patent, nor would it have been obvious to add this functionality to a Squeezebox system.

**6. Asserted Claim 9 is Not Rendered Obvious Based on Squeezebox**

1232. For the same reasons already discussed above in connection with Asserted Claim 1 of the '966 Patent, in my opinion, Asserted Claim 9 of the '966 Patent is not rendered obvious by Squeezebox in view of the general knowledge of a POSITA, Sonos's 2005 system, the Sonos Forums, Bose Lifestyle, Millington, or any of the other secondary references identified by Dr. Schonfeld.

**7. Asserted Claim 10 is Not Rendered Obvious Based on Squeezebox**

1233. For the same reasons already discussed above in connection with Asserted Claim 2 of the '966 Patent, in my opinion, Asserted Claim 10 of the '966 Patent is not rendered obvious by Squeezebox in view of the general knowledge of a POSITA, Sonos's 2005 system, the Sonos Forums, Bose Lifestyle, Millington, or any of the other secondary references identified by Dr. Schonfeld.

**8. Asserted Claim 12 is Not Rendered Obvious Based on Squeezebox**

1234. For the same reasons already discussed above in connection with Asserted Claim 4

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<sup>50</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies in his Opening Report, I expressly reserve my right to respond.

1 of the '966 Patent, in my opinion, Asserted Claim 12 of the '966 Patent is not rendered obvious  
2 by Squeezebox in view of the general knowledge of a POSITA, Sonos's 2005 system, the Sonos  
3 Forums, Bose Lifestyle, Millington, or any of the other secondary references identified by Dr.  
4 Schonfeld.

5 **9. Asserted Claim 14 is Not Rendered Obvious Based on Squeezebox**

6 1235. For the same reasons already discussed above in connection with Asserted Claim 6  
7 of the '966 Patent, in my opinion, Asserted Claim 14 of the '966 Patent is not rendered obvious  
8 by Squeezebox in view of the general knowledge of a POSITA, Sonos's 2005 system, the Sonos  
9 Forums, Bose Lifestyle, Millington, or any of the other secondary references identified by Dr.  
10 Schonfeld.

11 **10. Asserted Claim 16 is Not Rendered Obvious Based on Squeezebox**

12 1236. For the same reasons already discussed above in connection with Asserted Claim 8  
13 of the '966 Patent, in my opinion, Asserted Claim 16 of the '966 Patent is not rendered obvious  
14 by Squeezebox in view of the general knowledge of a POSITA, Sonos's 2005 system, the Sonos  
15 Forums, Bose Lifestyle, Millington, or any of the other secondary references identified by Dr.  
16 Schonfeld.

17 **C. The Bose Lifestyle 50 System**

18 1237. In the section of his Opening Report where he addresses the Asserted Claims of  
19 the '966 Patent, Dr. Schonfeld opines that that the Asserted Claims of the '966 patent are rendered  
20 obvious based on the Bose Lifestyle 50 System (which he often refers to as just "Bose Lifestyle")  
21 in view of "[g]eneral knowledge of a POSITA, the Sonos Forums, Nourse, Rajapakse, or  
22 Millington." *See* Schonfeld Op. Report at ¶¶ 1034-1065; *see also id.* at ¶ 855. I disagree.

23 1238. As an initial matter, Dr. Schonfeld fails to set forth any basis or reasoning for his  
24 opinion that the Asserted Claims of the '966 Patent are rendered obvious based on the Bose  
25 Lifestyle 50 System in view of "General knowledge of a POSITA, the Sonos Forums, Nourse,  
26 Rajapakse, or Millington." *Id.* Instead, with respect to the Asserted Claims of the '966 Patent, Dr.  
27 Schonfeld relies exclusively on his prior discussion of the Bose Lifestyle 50 System in the context  
28 of Asserted Claim 1 of the '885 Patent by merely citing to that portion of his Opening Report. *Id.*

1 In so doing, Dr. Schonfeld has failed to even acknowledge the fact that the Asserted Claims of the  
2 '966 Patent use different claim language than Asserted Claim 1 of the '885 Patent, let alone provide  
3 any explanation as to how his prior discussion of the Bose Lifestyle 50 System in the context of  
4 Asserted Claim 1 of the '885 Patent applies to the Asserted Claims of the '966 Patent. For these  
5 reasons, it is my opinion that Dr. Schonfeld has failed to provide any basis or reasoning for his  
6 opinion that the Asserted Claims of the '966 patent are rendered obvious based on the Bose  
7 Lifestyle 50 System in view of “[g]eneral knowledge of a POSITA, the Sonos Forums, Nourse,  
8 Rajapakse, or Millington.” *Id.*

9 1239. Given Dr. Schoenfeld’s reliance on his prior discussion of the Bose Lifestyle 50  
10 System in the context of Asserted Claim 1 of the '885 Patent, where appropriate, I have cited to  
11 and incorporated by reference my rebuttal analysis and opinions regarding Asserted Claim 1 of the  
12 '885 Patent from my '885 Rebuttal Report. However, unlike Dr. Schonfeld, I have also provided  
13 analysis in the context of the Asserted Claims of the '966 Patent, as set forth below. To the extent  
14 Dr. Schonfeld is permitted to later provide analysis and/or new opinions regarding the Asserted  
15 Claims of the '966 Patent, I reserve my right to address such analysis and/or opinions in a  
16 supplemental report and/or at trial.

17 1240. Based on my analysis of the Asserted Claims of the '966 Patent and the cited  
18 references, I disagree with Dr. Schonfeld’s unsupported opinion that the Asserted Claims of the  
19 '966 Patent are rendered obvious based on the Bose Lifestyle 50 System in view of “[g]eneral  
20 knowledge of a POSITA, the Sonos Forums, Nourse, Rajapakse, or Millington.” *Id.*

21 1241. To begin, Dr. Schonfeld has relied on various evidence for his “Bose Lifestyle 50  
22 System” reference that does not qualify as prior art, as I already explained above.

23 1242. Further, as explained below, it is my opinion that the Bose Lifestyle 50 System  
24 failed to disclose at least the following limitations of the Asserted Claims of the '966 Patent:

25 *Claims 1 and 9*

- 26 • A “zone scene” comprising a “predefined grouping of zone players . . . that are to  
27 be configured for synchronous playback of media when the . . . zone scene is  
28 invoked”;

- 1 • [1.4] / [1.5] and [9.1] / [9.2] “while serving as a controller for a networked media  
2 playback system comprising a first zone player and at least two other zone players,  
3 wherein the first zone player is operating in a standalone mode in which the first  
4 zone player is configured to play back media individually[,]” “receiving a first  
5 request to create a first zone scene comprising a first predefined grouping of zone  
6 players including at least the first zone player and a second zone player that are to  
7 be configured for synchronous playback of media when the first zone scene is  
8 invoked”;
- 9 • [1.4] / [1.6] and [9.1] / [9.3] “while serving as a controller for a networked media  
10 playback system comprising a first zone player and at least two other zone players,  
11 wherein the first zone player is operating in a standalone mode in which the first  
12 zone player is configured to play back media individually[,]” “based on the first  
13 request, i) causing creation of the first zone scene, ii) causing an indication of the  
14 first zone scene to be transmitted to the first zone player, and iii) causing storage of  
15 the first zone scene”;
- 16 • [1.4] / [1.7] and [9.1] / [9.4] “while serving as a controller for a networked media  
17 playback system comprising a first zone player and at least two other zone players,  
18 wherein the first zone player is operating in a standalone mode in which the first  
19 zone player is configured to play back media individually[,]” “receiving a second  
20 request to create a second zone scene comprising a second predefined grouping of  
21 zone players including at least the first zone player and a third zone player that are  
22 to be configured for synchronous playback of media when the first zone scene is  
23 invoked”;
- 24 • [1.4] / [1.8] and [9.1] / [9.5] “while serving as a controller for a networked media  
25 playback system comprising a first zone player and at least two other zone players,  
26 wherein the first zone player is operating in a standalone mode in which the first  
27 zone player is configured to play back media individually[,]” “based on the second  
28 request, i) causing creation of the second zone scene, ii) causing an indication of  
the second zone scene to be transmitted to the first zone player, and iii) causing  
storage of the second zone scene”;
- [1.4] / [1.9] and [9.1] / [9.6] “while serving as a controller for a networked media  
playback system comprising a first zone player and at least two other zone players,  
wherein the first zone player is operating in a standalone mode in which the first  
zone player is configured to play back media individually[,]” “displaying a  
representation of the first zone scene and a representation of the second zone  
scene”;
- [1.4] / [1.10] and [9.1] / [9.7] “while serving as a controller for a networked media  
playback system comprising a first zone player and at least two other zone players,  
wherein the first zone player is operating in a standalone mode in which the first  
zone player is configured to play back media individually[,]” and “while displaying  
the representation of the first zone scene and the representation of the second zone  
scene, receiving a third request to invoke the first zone scene”; and
- [1.11] and [9.8] “based on the third request, causing the first zone player to

transition from operating in the standalone mode to operating in accordance with the first predefined grouping of zone players such that the first zone player is configured to coordinate with at least the second zone player to output media in synchrony with output of media by at least the second zone player”.

*Claims 2 and 10 (depending from claims 1 and 9)*

- [2.0] “The computing device of claim 1, further comprising program instructions stored on the non-transitory computer-readable medium that, when executed by the one or more processors, cause the computing device to perform functions comprising”;
- [10.0] “The non-transitory computer-readable medium of claim 9, wherein the non-transitory computer-readable medium is also provisioned with program instructions stored on the non-transitory computer-readable medium that, when executed by the one or more processors, cause the computing device to perform functions comprising”;
- [2.1] and [10.1] “while the first zone player is configured to coordinate with at least the second zone player to play back media in synchrony with at least the second zone player, receiving a fourth request to invoke the second zone scene”; and
- [2.2] and [10.2] “while the first zone player is configured to coordinate with at least the second zone player to play back media in synchrony with at least the second zone player, receiving a fourth request to invoke the second zone scene”.

*Claims 3 and 11 (depending from claims 1 and 9)*

- [3.0] “The computing device of claim 1”;
- [11.0] “The non-transitory computer-readable medium of claim 9”;
- [3.1] and [11.1] “wherein causing storage of the first zone scene comprises causing storage of the first zone scene at a location other than the computing device”; and
- [3.2] and [11.2] “wherein causing storage of the second zone scene comprises causing storage of the second zone scene at the location other than the computing device”.

*Claims 4 and 12 (depending from claims 3 and 11)*

- [4.0] “The computing device of claim 3”;
- [12.0] “The non-transitory computer-readable medium of claim 11”;
- [4.1] and [12.1] “wherein the location other than the computing device comprises a zone player of the first predefined grouping of zone players”.

*Claims 6 and 14 (depending from claims 1 and 9)*



- [6.0] “The computing device of claim 1”;
- [14.0] “The non-transitory computer-readable medium of claim 9”;
- [6.1] and [14.1] “wherein the first predefined grouping of zone players does not include the third zone player”; and
- [6.2] and [14.2] “wherein the second predefined grouping of zone players does not include the second zone player”.

*Claims 8 and 16 (depending from claims 1 and 9)*

- [8.0] “The computing device of claim 1”;
- [16.0] “The non-transitory computer-readable medium of claim 9”;
- [8.1] and [16.1] “wherein receiving the first request comprises receiving a first set of one or more inputs via a user interface of the computing device”;
- [8.2] and [16.2] “wherein receiving the second request comprises receiving a second set of one or more inputs via the user interface”; and
- [8.3] and [16.3] “wherein receiving the third request comprises receiving a third set of one or more inputs via the user interface”.

1243. Further yet, it is my opinion that these limitations that were missing from Dr. Schonfeld’s “Bose Lifestyle 50” reference also would not have been obvious based on the Bose Lifestyle 50 System in view of “[g]eneral knowledge of a POSITA, the Sonos Forums, Nourse, Rajapakse, or Millington.” This opinion is based in part on the fact that I have not seen any evidence showing an apparent reason why a POSITA in 2005-06 would have been motivated to modify the Bose Lifestyle 50 System and/or combine it with any of the references identified by Dr. Schonfeld in order achieve the claimed inventions of the ’966 Patent. I have also seen other objective, real-world evidence demonstrating that a POSITA in 2005-06 would not have found the Asserted Claims of the ’966 Patent to have been obvious, which stands in stark contrast to Dr. Schonfeld’s failure to support his obviousness opinions with any objective evidence.

1244. My opinions regarding the non-obviousness of the Asserted Claims of the ’966 Patent over the Bose Lifestyle 50 System in view of “[g]eneral knowledge of a POSITA, the Sonos Forums, Nourse, Rajapakse, or Millington” are further supported by the fact that various of the secondary references identified by Dr. Schonfeld were considered by USPTO during prosecution

of the '966 Patent, which was then allowed to issue over these references. In particular:

- The Nourse patent as well as its prior publication were considered during prosecution of the '966 Patent (*see* '966 Patent at p. 4, 6);
- The Rajapakse patent as well as its prior publication were considered during prosecution of the '966 Patent (*see* '966 Patent at p. 5, 7); and
- Several U.S. counterparts to the Millington Canadian patent relied upon by Dr. Schonfeld were considered during prosecution of the '966 Patent, including U.S. Pat. No. 8,234,395 (*see* '966 Patent at p. 5).

1245. Because the USPTO considered these references during prosecution of the '966 Patent and then decided to grant the '966 Patent (including Asserted Claims 1, 2, 4, 6, 8, 9, 10, 12, 14, 16) over these references, I understand that Dr. Schonfeld has the added burden of overcoming the deference that is due to a qualified government agency, such as the USPTO, that is presumed to have properly done its job based on its expertise in interpreting references, its understanding of the level of ordinary skill in the art, and its duty to issue only valid patents. However, it is my opinion that Dr. Schonfeld failed to satisfy this added burden.<sup>51</sup>

1246. In his Opening Report, Dr. Schonfeld states that “[s]imply because the USPTO cited certain references during prosecution does not mean that these references were considered – the USPTO did not rely on any of these references as the basis for its rejections.” Schonfeld Op. Report at ¶ 327. I disagree. While the Examiner did not rely on the above-identified references as a basis for his preliminary rejections, the references identified above were all considered by the

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<sup>51</sup> I further note that, with respect to Dr. Shonfeld’s “Bose Lifestyle 50 System” reference, the “The Bose Lifestyle 50 System. Owner’s Guide, Oct. 17, 2001, 55 pages” was considered during prosecution of the related ‘885 Patent (*see* ‘885 Patent at p. 26), as was the “Bose Lifestyle SA-2 and SA-3 Stereo Amplifier Owner's Guide, 2004, 32 pages (*see* ‘885 Patent at p. 21). Further, with respect to the Bose Lifestyle 50 System, during prosecution of the ‘885 Patent, the Examiner stated in his Reasons for Allowance that “Bose does not allow dynamic additions and subtractions such as the synchronous addition of a particular third media player and removal of a second media player in substantially real time by the selection of an appropriately configured scene, nor does Bose enable scene-wise storage of such diverse groupings of media players.” *See* August 19, 2020 Notice of Allowance. Likewise, in his Examiner-Initiated Interview Summary that issued on the same day as the Notice of Allowance, the Examiner stated that he and Sonos “[d]iscussed the manner in which the instant claims feature beyond the Bose [Lifesytle 50 System] reference in as much as Bose does not discuss the claims selectively dynamic groupings of media players.” *See* August 19, 2020 Examiner-Initiated Interview Summary (regarding a July 31, 2020 interview).

1 Examiner as indicated by the Examiner's statement that "ALL REFERENCES CONSIDERED  
2 EXCEPT WHERE LINED THROUGH," followed by the Examiner's signature. Thus, it is my  
3 understanding that the Examiner did consider the references identified above and determined that  
4 the claimed inventions of the '966 Patent were novel and non-obvious over those references.

5 1247. After suggesting that the USPTO did not consider the above-identified references,  
6 Dr. Schonfeld then states that "the USPTO did not have the benefit of the Court's claim  
7 construction for 'zone scene.'" Schonfeld Op. Report at ¶ 327. However, Dr. Schonfeld does not  
8 explain how this assertion is related to whether or not the USPTO considered the references or  
9 how "hav[ing] the benefit of the Court's claim construction for 'zone scene'" would have had any  
10 impact on the USPTO's decision to grant the '966 Patent. Regardless, for the reasons explained  
11 below, it is my opinion that the USPTO's decision to grant the '966 Patent over the above-  
12 identified references was correct, because those references fail to anticipate or render obvious any  
13 of the Asserted Claims of the 966 Patent.

14 1248. In the sub-sections below, I have provided a summary of the bases for my opinions,  
15 as well as responses to Dr. Schonfeld's opinions.

16 **1. Asserted Claim 1 is Not Rendered Obvious Based on The Bose Lifestyle**  
17 **50 System**

18 1249. For the reasons discussed below, in my opinion, Asserted Claim 1 of the '966 Patent  
19 is not rendered obvious by the Bose Lifestyle 50 System in view of "[g]eneral knowledge of a  
20 POSITA, the Sonos Forums, Nourse, Rajapakse, or Millington."

21 **i. Dr. Schonfeld Fails to Map his Alleged "Bose Lifestyle 50**  
22 **System" Reference to the Claimed Devices of Claim 1**

23 1250. Asserted Claim 1 of the '966 Patent requires a physical "computing device" that is  
24 configured to "serv[e] as a controller for a networked media playback system" comprising at least  
25 three different physical "zone players."

26 1251. In Dr. Schonfeld's Opening Report, he fails to set forth any analysis of the Bose  
27 Lifestyle 50 System in connection with Asserted Claim 1 of the '966 Patent, and instead merely  
28 cites back to certain aspects of his analysis of the Bose Lifestyle 50 System in the context of

1 Asserted Claim 1 of the '885 Patent. Schonfeld Op. Report at ¶¶ 1034-1065. Thus, Dr. Schonfeld  
2 fails to articulate what he considers to be the “computing device,” the “zone players,” and the  
3 “networked media playback system” of Asserted Claim 1 of the '966 Patent in his “Bose Lifestyle  
4 50 System” reference.

5 1252. Moreover, Dr. Schonfeld’s analysis in his Opening Report of the Bose Lifestyle 50  
6 System in connection with Asserted Claim 1 of the '885 Patent does not provide any clarity on  
7 these issue as it is unclear what devices in the Bose Lifestyle 50 System Dr. Schonfeld is mapping  
8 to the “network device,” the “zone players,” and the “networked media playback system” of  
9 Asserted Claim 1 of the '885 Patent. *See* Schonfeld Op. Report at ¶¶ 855-962.

10 1253. To the extent Dr. Schonfeld is permitted to later provide analysis and/or new  
11 opinions regarding the Asserted Claims of the '966 Patent, I reserve my right to address such  
12 analysis and/or opinions in a supplemental report and/or at trial.

13 **ii. The Bose Lifestyle 50 System did not have “Zone Players”**

14 1254. Asserted Claim 1 of the '966 Patent requires a “computing device” that is  
15 programmed with certain functional capability including “serving as a controller for a networked  
16 media playback system comprising a first zone player and at least two other zone players.” As  
17 noted above, Sonos’s proposed construction of “zone player” as that term is used in the '966 Patent  
18 is a “data network device configured to process and output audio.” *Supra* Section X.B. And related  
19 to this proposed construction, Sonos’s interpretation of the plain and ordinary meaning of the term  
20 “data network” is “a medium that interconnects devices, enabling them to send digital data packets  
21 to and receive digital data packets from each other.” *Id.*

22 1255. As an initial matter, it is not clear what devices in the Bose Lifestyle 50 System Dr.  
23 Schonfeld is alleging to be the claimed “zone players.” *See* Schonfeld Op. Report at ¶¶ 859-865.  
24 Instead, his analysis of the Bose Lifestyle 50 System in the context of Asserted Claim 1 of the '885  
25 Patent, Dr. Schonfeld merely states that the “Bose Lifestyle player corresponds to the claimed  
26 Zone Player and it provides the ability to stream music from a controller over a Wi-Fi or ethernet  
27 network.” *Id.* at 859. I am unaware of any device in the Bose Lifestyle 50 System called the “Bose  
28 Lifestyle player.” For this reason alone, Dr. Schonfeld has failed to prove that the Bose Lifestyle

1 50 System discloses the “zone players” of Asserted Claim 1 of the ’966 Patent.

2 1256. Regardless, in my opinion, the Bose Lifestyle 50 System fails to disclose “zone  
3 players” for at least the following reasons.

4 1257. First, to the extent Dr. Schonfeld is arguing that either a Jewel Cube speaker, an  
5 Acoustimass module, or an SA-2 or SA-3 amplifier as a “zone player,” I disagree. Applying  
6 Sonos’s constructions of “zone player” and “data network,” neither a Jewel Cube speaker, nor an  
7 Acoustimass module, nor an SA-2 or SA-3 amplifier is a “first zone player” because these devices  
8 (i) are not data network devices that can send digital data packets to and receive digital data packets  
9 from another device and (ii) are not capable of performing any digital data processing on the audio  
10 before outputting it. Instead, the evidence I have reviewed shows that a Jewel Cube speaker merely  
11 receives an audio signal over an audio cable from an Acoustimass module or SA-2 or SA-3  
12 amplifier and outputs audio, and that an Acoustimass module or SA-2 or SA-3 amplifier receives  
13 an audio signal over an audio cable from the Multi-Room Interface of the Bose Lifestyle 50 system  
14 and outputs audio. *See* BOSE\_SUB-0000001-55 at 7, 11-12, 14-15, 42; BOSE\_SUB-0000361-  
15 448 at 376. There is no evidence of two-way digital data packet communication between a Jewel  
16 Cube speaker and an Acoustimass module or SA-2 or SA-3 amplifier, or between an Acoustimass  
17 module or SA-2 or SA-3 amplifier and the Multi-Room Interface of the Bose Lifestyle 50 system.  
18 There is also no evidence of any communication whatsoever between Jewel Cube speakers or  
19 between Acoustimass modules or SA-2 or SA-3 amplifiers when these products are used with a  
20 Multi-Room Interface of the Bose Lifestyle 50 system, as Dr. Schonfeld appears to be asserting.  
21 And lastly, there is no evidence that these devices perform any digital data processing before  
22 outputting the audio.

1258. Second, to the extent Dr. Schonfeld is arguing that a Jewel Cube speaker of the Bose Lifestyle 50 System is the “first zone player,” I disagree because a Jewel Cube speaker is not configured to *process* and output audio. Instead, a Jewel Cube speaker is a passive speaker that is hard-wired to an Acoustimass module and simply outputs audio in the form of sound once an analog signal is received via an audio cable. See BOSE\_SUB-0000001-55 at 7, 11-12.

**Connecting the Jewel Cube® speakers to the Acoustimass® module**

1. Match each cable to the corresponding speaker location.

- Front speaker cables have blue RCA connectors at one end, with L, R, or C molded into both the RCA connectors and the Jewel Cube connectors at the other end.
- Surround speaker cables have orange RCA connectors at one end, with L or R molded into both the RCA connectors and the Jewel Cube connectors at the other end.

2. Insert the Jewel Cube connector of each cable fully into the jack on the rear of one of the five speakers (Figure 7). Match the ridge of the connector to the notch at the top of the jack.

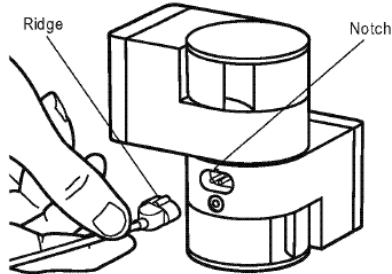
3. Connect each cable to the corresponding jack on the Acoustimass module (Figure 8).

- Plug the blue connectors into the matching left front, center, and right front jacks.
- Plug the orange connectors into the matching left surround and right surround jacks.

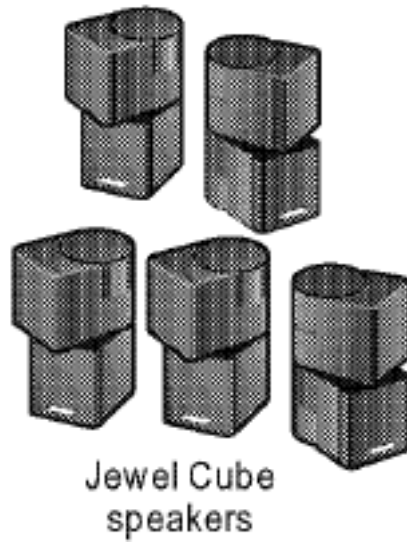
To lengthen the cable, connect speaker wire with male phono (RCA) plugs on each end to your supplied speaker cable. Use a female-to-female adapter (“barrel” connector). Or, splice in 18-gauge (.75 mm<sup>2</sup>) or thicker cord (connecting + to + and – to –). To purchase extension wire, see your dealer or electronics store, or call Bose® Customer Service.

**Figure 7**

Connecting speaker cables to Jewel Cube speakers





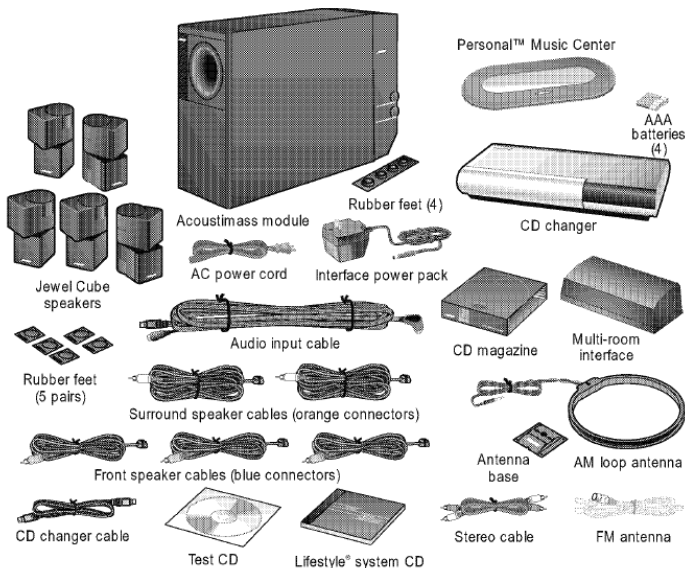


1259. Third, to the extent Dr. Schonfeld is arguing that an SA-2 or SA-3 amplifier is a “zone player,” I further disagree on the basis that an SA-2 or SA-3 amplifier is not part of the actual Bose Lifestyle 50 System, which is shown below:

**Figure 1**

*What comes with your Lifestyle® 50 system:*

- Personal music center
- CD changer
- Multi-room interface
- Interface power pack\*
- 5 Jewel Cube® speakers
- 5 speaker cables
- Acoustimass module
- AC power (mains) cord\*
- 14 self-adhesive rubber feet (4 for the module and 5 pairs for the Jewel Cube speakers)
- Audio input cable
- CD changer cable
- Stereo cable
- 4 AAA batteries
- FM antenna
- AM loop antenna
- AM antenna base
- CD magazine
- Lifestyle® system CD
- Test CD



BOSE\_SUB-0000001-55 at 7.

1260. Regardless, if an SA-2 or SA-3 amplifier were actually connected to the Multi-Room Interface of the Bose Lifestyle 50 System, it appears to me that it would operate like an



1 Acoustimass module in the sense that it would receive an audio signal over an audio cable from  
2 the Multi-Room Interface of the Bose Lifestyle 50 system with no two-way digital data packet  
3 communication between an SA-2 or SA-3 amplifier and the Multi-Room Interface of the Bose  
4 Lifestyle 50 system. *See* BOSE\_SUB-0000001-55 at 11-12, 42; BOSE\_SUB-0000361-448 at 376.

5 1261. Further, neither a Jewel Cube Speaker, Acoustimass module, or SA-2 or SA-3  
6 amplifier is a “zone player” as required by the Asserted Claims of the ’966 Patent because they did  
7 not have the capability to change their “configur[ation]” as it related to audio playback in order to  
8 transition between “standalone mode” and grouped mode.

9 1262. Herein, I sometimes refer to a device that can be used in a Bose Lifestyle 50 System  
10 to output audio – including an Acoustimass module, an SA-2 or SA-3 amplifier, and/or a connected  
11 speaker (e.g., Jewel Cube Speaker), as a “Lifestyle player.”

12 **iii. The Bose Lifestyle 50 System did not have “Zone Scenes”**  
13 **Functionality**

14 1263. Asserted Claim 1 of the ’966 Patent requires a “computing device” that is  
15 programmed with certain functional capability for creating and invoking a “zone scene,” which is  
16 a user-customized, pre-saved group of “zone players” that is able to exist in an inactive state while  
17 remaining available for selection by a user so that the group can be invoked later on demand for  
18 synchronous playback. And more specifically, Asserted Claim 1 of the ’966 Patent requires a  
19 “computing device” that is programmed with functional capability for creating multiple “zone  
20 scenes” having an overlapping “zone player” and then later invoking one of the “zone scenes.”

21 1264. As explained above in Sections IX and XV.A.1.i, there are several key distinctions  
22 between a “zone scene” and the types of temporary, ad-hoc groups that could be created by a user  
23 in prior art systems such as the Bose Lifestyle 50 System.

24 1265. Based on the evidence I have reviewed regarding Dr. Schonfeld’s “Bose Lifestyle  
25 50 System” reference, it is my opinion that neither the Personal Music Center (which serves as a  
26 wireless remote control for the actual Bose Lifestyle 50 System), nor the Personal Music Center  
27 in combination with the centralized Multi-Room Interface of the Bose Lifestyle 50 System, nor  
28 any of the other Bose controllers alone or in combination with other centralized audio distribution

1 devices in the various Bose documents relied on by Dr. Schonfeld had **any** functional capability  
2 for creating or invoking a “zone scene” – let alone the required functional capability to cause the  
3 creation of two different, overlapping “zone scenes” that are both available for selection by a user  
4 and then later cause a selected one of the two different “zone scenes” to be invoked, as required  
5 by Asserted Claim 1 of the ’966 Patent.

6 1266. As explained above, the evidence I reviewed indicates that the Personal Music  
7 Center of the Bose Lifestyle 50 System enabled a user to set up a “shared source” of audio that  
8 could be distributed via audio cables from the centralized Multi-Room Interface to Lifestyle  
9 players in up to four rooms (rooms A, B, C, and D) so that the same audio could be played back  
10 simultaneously<sup>52</sup> via the Lifestyle players and their connected speakers (e.g., the Jewel Cube  
11 speakers of the Bose Lifestyle 50 System). BOSE\_SUB-0000001-55 at 44-45. Based on the Bose  
12 Lifestyle 50 System evidence I reviewed, setting up a “shared source” was the only way to create  
13 any sort of “group” of Lifestyle players that were capable of playing back the same audio  
14 simultaneously. Herein I sometimes refer to such a group of Lifestyle players as a “shared source  
15 group.”

16 1267. As an example, to set up a “shared source group” in two rooms A and B, a user  
17 could (1) use the ROOM button on the Personal Music Center to select room A and then use a  
18 source button to set an audio source for room A; and (2) use the ROOM button on the Personal  
19 Music Center to select room B and then use the same source button to set the same audio source  
20 for room B. Thereafter, the user could use the ROOM button again to select both rooms A and B  
21 together such that both rooms could be controlled together:

22  
23  
24  
25  
26 <sup>52</sup> Notably, the Owner’s Guide for the Bose Lifestyle 50 System does not describe a group of  
27 Lifestyle players as outputting audio in “synchrony,” and it is my opinion that this configuration  
28 would not have provided “synchronous playback of media” as that phrase is used in the context of  
the ’966 Patent, because such a configuration would not have involved any coordination between  
the Lifestyle players or their connected speakers that had been grouped.

### **Setting up a shared source**

Now, let's say the system is already on and you want to play the FM radio in rooms A and B:

1. Wake up the Personal music center.
2. Press the ROOM button until the room indicator **A** is displayed. Press the FM source button and adjust the volume to the desired level for room A.
3. Press the ROOM button again to select room **B**. Press the FM source button and adjust the volume to the desired level for room B. Now, the indicators **A B** are displayed.
4. Press the ROOM button again. The indicators **A B** appear on the display indicating that you can control these two rooms together. Any button command given now (SOURCE, VOLUME, MUTE, ON/OFF, SLEEP) is applied to both rooms.

BOSE\_SUB-0000001-55 at 44.

1268. Alternatively, a user could set up a "shared source group" for all the available rooms A-D by pressing the HOUSE button on the Personal Music Center followed by pressing a source button to select the audio source that the user wanted to listen to in all rooms:

### **Using the HOUSE button**

Using the HOUSE button, you can link all rooms together and control them as one. When you press the HOUSE button, an empty box indicator is displayed for each connected room. Any button pressed after that (any source button, VOLUME, MUTE, or SLEEP) affects every room. When you are done listening you can press OFF to turn off the entire system.

**Note:** If you do not press any additional buttons after pressing HOUSE, pressing HOUSE again cancels HOUSE mode.

BOSE\_SUB-0000001-55 at 45.<sup>53</sup>

1269. As explained above, when a user set up a "shared source group" in one of the ways described above, the evidence I have reviewed indicates that the Personal Music Center would communicate with the centralized Multi-Room Interface and the centralized Multi-Room Interface would configure itself to distribute the same audio from the same audio source to each of the rooms sharing the source so that the same audio could be played back simultaneously via the Lifestyle players. See, e.g., BOSE\_SUB-0000001-55 at 6 ("The Bose Multi-Room Interface, with four

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<sup>53</sup> It is worth noting that pressing the HOUSE button itself does not cause, and is not used to configure, all the players to play audio in synchrony. For example, to control multiple players that are each playing different audio, a user could press the HOUSE button followed by pressing the mute button to mute all the players. See BOSE\_SUB-0000001-55 at 45.

1 independent audio outputs that allow you to enjoy Bose sound throughout your home.”), 12  
2 (illustrating a Bose Lifestyle 50 System configuration with a CD player and an Acoustimass  
3 module connected the Multi-Room Interface), 17 (illustrating various audio sources connected to  
4 Multi-Room Interface via audio input cables), 19 (“When batteries are first installed in the music  
5 center; it sets up a radio-frequency link with the closest multi-room interface.... If the music center  
6 continuously displays "NO RESPONSE," you need to try to establish its link with the multi-room  
7 interface again.”), 42 (Figure 47 showing “AUDIO OUTPUT” jacks for each room), 44-45  
8 (explaining how to use ROOM and HOUSE buttons of the Personal Music Center to set up an  
9 audio source for one or more rooms connected to the Multi-Room Interface), 45 (“To add a new  
10 music center to your system, follow the setup instructions on page 17. Be sure to install the  
11 batteries and turn it on for the first time close to the multi-room interface to allow the new music  
12 center to set up a radio frequency link with your system. If the multi-room interface is not plugged  
13 in or the music center is out of range, the display indicates NO RESPONSE.”). In this regard, the  
14 simultaneous audio playback in multiple rooms sharing a source was controlled exclusively by the  
15 centralized Multi-Room Interface and its ability to output the same source via the “AUDIO  
16 OUTPUT” jacks to each room in the “shared source group.” In other words, when a “shared source  
17 group” was activated, neither the Lifestyle players nor their connected speakers would change their  
18 configuration as it relates to audio playback. Instead, they would just play back the audio that they  
19 received from the centralized Multi-Room Interface in the same manner that would have played  
20 audio received from the centralized Multi-Room Interface had they not been added to a “shared  
21 source group.” As such, there would be no coordination between the Lifestyle players in a “shared  
22 source group” and the Lifestyle players would not have had any awareness of whether or not they  
23 were part of a “shared source group.”

24 1270. Further, the evidence I have reviewed indicates that once a “shared source group”  
25 was set up, a Lifestyle player sharing the audio source could not thereafter be used for individual  
26 audio playback until a user used the ROOM button of the Personal Music Center to select the  
27 Lifestyle player and then used a source button to set the audio source for the Lifestyle player to a  
28 different audio source such that it no longer shares an audio source with other Lifestyle players.

1 *Id.* at 44 (“Returning to single-room control[:] After you have gained control of multiple rooms  
2 using the ROOM button, you can use the ROOM button again to gain control of a single room.  
3 Press ROOM until the room you want is displayed (A, B, C, or D). Control that room as  
4 desired.”). In this way, a group of Lifestyle players having a “shared source” of audio would have  
5 to be destroyed before any one of the Lifestyle players in the group could be used for individual  
6 audio playback.

7 1271. Based on the foregoing evidence, it is clear that a “shared source group” of Lifestyle  
8 players only existed temporarily during the limited time that the “shared source group” was  
9 activated for playback, and as soon as a user wanted to use a Lifestyle player in an existing “shared  
10 source group” for individual playback or wanted to create a new “shared source group” that  
11 included one or more of the Lifestyle players in the existing “shared source group”, the existing  
12 “shared source group” would need to be destroyed by removing the one or more Lifestyle players  
13 that the user wanted to use for individual playback or wanted to include in a new “shared source  
14 group” of Lifestyle players. As a result, the only way a user could use a “shared source group”  
15 having that same group membership again in the future was by re-creating a new temporary  
16 “shared source group” that included the same members as the previously-existing “shared source  
17 group”. And as explained above, such a temporary, ad-hoc group that was automatically activated  
18 at the time of creation and then only remained in existence during the limited time it was activated  
19 is distinctly different from a “zone scene,” which requires a user-customized, pre-saved group of  
20 “zone players” that is able to exist in an inactive state while remaining available for selection by a  
21 user so that it can later be invoked on demand for synchronous playback.

22 1272. Indeed, as an initial matter, a “shared source group” of Lifestyle players was not a  
23 pre-saved group that was available to be *later invoked on demand* for synchronous playback at  
24 some time after the creation of the “shared source group”, which is a fundamental requirement of  
25 the claimed “zone scenes.” To the contrary, the Bose Lifestyle 50 System evidence I have  
26 reviewed makes clear that a “shared source group” of Lifestyle players was a temporary, ad-hoc  
27 group that was automatically activated at the time it was created and then only remained in  
28 existence until the time that the “shared source group” was deactivated, at which time the “shared

1 source group” would be automatically destroyed such that the “shared source group” was not  
2 available to be *later invoked on demand* for synchronous playback. *See, e.g.,* BOSE\_SUB-  
3 0000001-55 at 43 (“A shared source is one that is playing in the controlled room as well as in up  
4 to three additional rooms”), 44 (“Setting up a shared source[:] ... Press the ROOM button again.  
5 The A B indicators appear on the display indicating that you can control these two rooms together.  
6 Any button command given now (SOURCE, VOLUME, MUTE, ON/OFF, SLEEP) is applied to  
7 both rooms.”), 44 (“Returning to single-room control[:] After you have gained control of multiple  
8 rooms using the ROOM button, you can use the ROOM button again to gain control of a single  
9 room. Press ROOM until the room you want is displayed (A, B, C, or D). Control that room as  
10 desired.”), 45 (“Press the HOUSE button before each command to apply the command to all  
11 rooms: Press ... HOUSE then a source [to] [p]lay the selected source in all connected rooms.”).<sup>54</sup>

12 1273. Further, a “shared source group” of Lifestyle players was not a pre-saved group that  
13 was *able to exist in an inactive state* in which the pre-saved group was available for selection by a  
14 user but the “zone players” in the pre-saved group could still be used for individual audio playback,  
15 which is another fundamental requirement of the claimed “zone scenes.” To the contrary, the Bose  
16 Lifestyle 50 System evidence I have reviewed makes clear that a “shared source group” of  
17 Lifestyle players was only able to exist in an active state during which time it was not possible for  
18 a user to use any of the Lifestyle players added to the “shared source group” for individual audio  
19 playback, and once a “shared source group” was deactivated, it would be automatically destroyed  
20 such that it was no longer available for selection by a user. *See, e.g.,* BOSE\_SUB-0000001-55 at  
21 44 (“Returning to single-room control[:] After you have gained control of multiple rooms using  
22 the ROOM button, you can use the ROOM button again to gain control of a single room. Press  
23 ROOM until the room you want is displayed (A, B, C, or D). Control that room as desired.”).

24 1274. Further yet, a “shared source group” of Lifestyle players was not a pre-saved group  
25 of “zone players” that are “*to be configured for synchronous playback of media*” when the pre-

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26 <sup>54</sup> Like Squeezebox, the Bose Lifestyle 50 System utilizes temporary, ad-hoc grouping that is  
27 controlled by a centralized device – the SlimServer of Squeezebox and the Multi-Room Interface  
28 of the Bose Lifestyle 50 System. As such, the Bose Lifestyle 50 System suffers from many of the  
same defects with respect to Asserted Claim 1 of the ’996 Patent as Squeezebox.



1 saved group is “invoked” for the additional reason that the invocation of a “shared source group”  
2 – which took place automatically at the time the “shared source group” was created – did not  
3 involve any change to the *configuration* of the Lifestyle players as it relates to audio playback,  
4 which is another requirement of the claimed “zone scene.” To the contrary, the Bose Lifestyle 50  
5 System evidence I have reviewed indicates that a Lifestyle player added to a “shared source group”  
6 would have had the same configuration for audio playback both before and after the “shared source  
7 group” was invoked. BOSE\_SUB-0000001-55 at 6 (“The Bose Multi-Room Interface, with four  
8 independent audio outputs that allow you to enjoy Bose sound throughout your home.”), 12  
9 (illustrating a Bose Lifestyle 50 System configuration with a CD player and an Acoustimass  
10 module connected the Multi-Room Interface), 17 (illustrating various audio sources connected to  
11 Multi-Room Interface via audio input cables), 19 (“When batteries are first installed in the music  
12 center; it sets up a radio-frequency link with the closest multi-room interface.... If the music center  
13 continuously displays "NO RESPONSE," you need to try to establish its link with the multi-room  
14 interface again.”), 42 (Figure 47 showing “AUDIO OUTPUT” jacks for each room), 44-45  
15 (explaining how to use ROOM and HOUSE buttons of the Personal Music Center to set up an  
16 audio source for one or more rooms connected to the Multi-Room Interface), 45 (“To add a new  
17 music center to your system, follow the setup instructions on page 17. Be sure to install the  
18 batteries and turn it on for the first time close to the multi-room interface to allow the new music  
19 center to set up a radio frequency link with your system. If the multi-room interface is not plugged  
20 in or the music center is out of range, the display indicates NO RESPONSE.”); BOSE\_SUB-  
21 0000684-687 at 684-685. In fact, based on my review of the Bose Lifestyle 50 System evidence,  
22 it appears that a Lifestyle player and/or its connected speakers would not have had any awareness  
23 that it had been added to a “shared source group” that would have prompted the Lifestyle player  
24 to change its configuration for audio playback – the information about a “shared source group”  
25 would have been exclusively maintained by the Multi-Room Interface.

26 1275. Further yet, a “shared source group” of Lifestyle players was not capable of having  
27 a group member that was also a member of a different “shared source group” available for selection  
28 by a user, which is another requirement of the claimed “zone scenes.” To the contrary, a Lifestyle



1 player could only be a member of one “shared source group” that was in existence at any given  
2 time, and the only way a Lifestyle player in a first “shared source group” could have been added  
3 to a second “shared source group” was to destroy the first “shared source group.”

4 1276. Further yet, the Bose Lifestyle 50 System evidence I have reviewed confirms that  
5 there was no ability for a user to assign a thematic name to a “shared source group,” which fails to  
6 meet the additional “according to a common theme” requirement of Google's proposed  
7 construction of a “zone scene,” as interpreted by the Court.

8 1277. Further yet, a “shared source group” does not comprise a user-customized, pre-  
9 saved group of “zone players” as required by a “zone scene,” because the Jewel speakers,  
10 Acoustimass Modules, and/or SA2 or SA3 amplifiers are not “zone players,” as described above.

11 1278. Finally, the Bose Lifestyle 50 System is the type of “conventional multi-zone audio  
12 system” that the '966 Patent describes as having limitations with regard to grouping and that the  
13 “zone scenes” functionality of the '96 Patent distinguished and improved upon. *See* '966 Patent  
14 at 1:30-2:24; *see also* Case No. 20-6754, D.I. 309 at 3-5, 12.

15 1279. Thus, for at least these reasons, it is my opinion that a “shared source group” of  
16 Lifestyle players in a Bose Lifestyle 50 System does not constitute a “zone scene.”

17 1280. Further, with respect to creating a “shared source group” using the “HOUSE”  
18 button to cause the Multi-Room Interface to output the same audio to all rooms in a home, this  
19 “HOUSE” option appears to be hard-coded into the Personal Music Center. It was not a user-  
20 created, customized group that was predefined and pre-saved at a user's request as part of an initial  
21 “setup” phase, which is a required aspect of the claimed “zone scenes.” *See* Case No. 20-6754,  
22 D.I. 309 at 4 (the Court finding that Sonos's patented “zone scene” technology “‘allows a *user* to  
23 *customize and save* multiple groups of smart speakers or other players . . . and then later ‘activate  
24 a *customized* group, called a ‘zone scene,’ on demand), 8 (the Court noting that the “basic purpose  
25 of the invention . . . is to allow *users* to *pre-save customized speaker groups* and later ‘invoke’ the  
26 named group on demand”), 12 (the Court finding that “[*t*]he claimed ability to *customize and save*  
27 *overlapping speaker groups* and easily control group playback represents a clear technological  
28 improvement over the ‘conventional multi-zone audio system,’ which, as the specification

1 explained, presents significant technological and physical obstacles to forming speaker groups”).

2 1281. Further, because the “HOUSE” option appears to be hard-coded into the Personal  
3 Music Center – and thus was not a user-created, customized group that was predefined and pre-  
4 saved at a user’s request as part of an initial “setup” phase – the “HOUSE” option of the Bose  
5 Lifestyle 50 System also fails to meet several other limitations of Asserted Claim 1 of the ’966  
6 Patent. For instance, a Personal Music Center never received “a request to create” the “HOUSE”  
7 option, never “caus[ed] creation of” the “HOUSE” option, never “caus[ed] an indication of” the  
8 “HOUSE” option to be transmitted to a Lifestyle player based on a “request to create” that option,  
9 and never “caus[ed] storage of” the “HOUSE” option based on a “request to create” that option.

10 1282. Further yet, there was no ability for a user to assign a thematic name to the  
11 “HOUSE” option, which fails to meet the additional “according to a common theme” requirement  
12 of Google's proposed construction of a “zone scene,” as interpreted by the Court.

13 1283. Thus, for at least these reasons, it is my opinion that the “HOUSE” option provided  
14 by the Bose Lifestyle 50 System was merely just a different way to create an ad-hoc “shared source  
15 group,” and also does not constitute a “zone scene.” *See also* SONOS-SVG2-00026839-58 at  
16 SONOS-SVG2-00026840 (explaining that the “Zone Scene feature” is “similar to the current Party  
17 Mode setting that is available” but that “*the Zone Scenes feature is much more flexible and*  
18 *powerful*”).

19 1284. I further note that the none of the Bose Lifestyle 50 System evidence that I have  
20 reviewed uses the term “zone scenes” or otherwise describes any technology that would have  
21 enabled a user to create a user-customized, pre-saved group of Lifestyle players that was able to  
22 exist in an inactive state while remaining available for selection by a user so that it could later be  
23 invoked on demand for synchronous playback, which further confirms that the Bose Lifestyle 50  
24 System did not have any functional capability for creating or invoking a “zone scene.”

25 1285. Turning to the additional requirement of the Asserted Claim 1 of the ’966 Patent  
26 that the claimed “computing device” be programmed with functional capability for causing the  
27 creation of two overlapping “zone scenes” that co-exist with one another and are both available  
28 for selection by a user at the same time, this functionality is also not possible with the Bose

1 Lifestyle 50 System. Indeed, even setting aside the above-described fundamental differences  
2 between a “shared source group” of Lifestyle players and a “zone scene,” the Personal Music  
3 Center did not have the possibility to create two overlapping “shared source groups” that co-exist  
4 in this manner. To the contrary, the Bose Lifestyle 50 System evidence I have reviewed establishes  
5 that a Lifestyle player could only be a member of one “shared source group” of Lifestyle players  
6 that was in existence at any given time, and that the only way a Lifestyle player in a first “shared  
7 source groups” could have been added to a second “shared source groups” was to destroy the first  
8 group by changing the audio source for the Lifestyle player to match the “shared source” of audio  
9 for the second group. *See, e.g.* BOSE\_SUB-0000001-55 at 43-45 (explaining how to use ROOM  
10 and HOUSE buttons to set up an audio source for one or more rooms).

11 1286. Despite this clear evidence establishing that the Personal Music Center, the Multi-  
12 Room Interface, and the Lifestyle players in a Bose Lifestyle 50 System did not have any “zone  
13 scene” capability, Dr. Schonfeld nevertheless opines that the “zone scene” limitations required by  
14 the Asserted Claims of the ’966 Patent were either disclosed or rendered obvious by the Bose  
15 Lifestyle 50 System. *See* Schonfeld Op. Report at ¶¶ 1034-1065. However, I find Dr. Schonfeld’s  
16 opinions regarding the Bose Lifestyle 50 System and the “zone scene” limitations of the Asserted  
17 Claims of the ’966 Patent to be flawed for several reasons.

18 1287. As an initial matter, Dr. Schonfeld fails to set forth any basis or reasoning for his  
19 opinions regarding the Bose Lifestyle 50 System and the “zone scene” limitations of the Asserted  
20 Claims of the ’966 Patent. Instead, Dr. Schonfeld merely refers back to his discussion of certain  
21 claim limitations of Asserted Claim 1 of the ’885 Patent and makes the following conclusory  
22 statement:

23 1039. *See supra* ‘885 claim 1, Limitation 1.6. Included in my incorporation by reference  
24 is my discussion of the “first zone scene” disclosure in, e.g., 1.6. I include in my incorporation by  
25 reference the discussion of the creation of the first zone scene, its composition, its synchronous  
26 playback configuration, and the ability of invocation of that zone scene. Additionally, dependent  
27  
28

1  
2 1288. However, the Asserted Claims of the '966 Patent are directed to a different type of  
3 device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as  
4 a controller" as opposed to a "zone player"), the Asserted Claims of the '966 Patent use different  
5 claim language than Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any  
6 further explanation as to how his prior discussion of the Bose Lifestyle 50 System in the context  
7 of the "zone scene" limitations of Asserted Claim 1 of the '885 Patent applies to the "zone scene"  
8 limitations of the Asserted Claims of the '966 Patent. In fact, Dr. Schonfeld fails to even state  
9 whether his opinion is that the "zone scene" limitations of the Asserted Claims of the '966 Patent  
10 were actually *disclosed* by the Bose Lifestyle 50 System versus whether his opinion is that the  
11 "zone scene" limitations of the Asserted Claims of the '966 Patent were only *rendered obvious* by  
12 the Bose Lifestyle 50 System. For these reasons, I disagree that Dr. Schonfeld's barebones  
13 discussion of the "zone scene" limitations of the '966 Patent amounts to a detailed and complete  
14 statement of all opinions to be expressed and the basis and reasons therefor, which I understand to  
15 be the governing standard for expert reports, and that barebones discussion has prejudiced my  
16 ability to fully discern, assess, and respond to his opinions regarding the "zone scene" limitations  
17 of the Asserted Claims of the '966 Patent.<sup>55</sup>

18 1289. Moreover, I have reviewed the section of Dr. Schonfeld's Opening Report where  
19 he discusses the Bose Lifestyle 50 System in the context of claim limitation 1.6 of Asserted Claim  
20 1 of the '885 Patent, and nothing in that section of Dr. Schonfeld's Opening Report alters my  
21 opinion that the Bose Lifestyle 50 System did not include the "zone scenes" capability required by  
22 the Asserted Claims of the '966 Patent.

23 1290. Indeed, Dr. Schonfeld's theories and opinions regarding the alleged existence of  
24 "zone scenes" capability in the Bose Lifestyle 50 System are all premised on Dr. Schonfeld's  
25 incorrect interpretation of what is required to qualify a "zone scene," and are also premised on  
26 several inaccurate and misleading characterizations of Bose Lifestyle 50 System and the evidence

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27 <sup>55</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

1 related thereto.

2 1291. As an initial matter, Dr. Schonfeld's opinion that the Bose Lifestyle 50 System  
3 discloses a "zone scene" is based in part on functionality that is not related to the actual Bose  
4 Lifestyle 50 System itself. *See* Schonfeld Op. Report at ¶¶ 899-904. Indeed, in addition to relying  
5 on setting up a "shared source group" using the "ROOM" and "HOUSE" buttons of the Personal  
6 Music Center of the Bose Lifestyle 50 System (*id.* at ¶ 901 (citing BOSE\_SUB-0000001 at 40,  
7 43), which I explained above, Dr. Schonfeld also relies on disclosure related to (i) the Bose  
8 Freespace E4 system (*id.* at ¶ 902 (citing BOSE\_SUB-0000062 at 122 and BOSE\_SUB-0000140  
9 at 144-145) which, as explained above, is not utilized by or compatible with the Bose Lifestyle 50  
10 System, (ii) setting up SA-2 and/or SA-3 Amplifiers in "additional rooms" using Bose link  
11 technology of a Bose "Lifestyle 18 series II, 28 series II, 38 or 48 home entertainment system" (*id.*  
12 at ¶ 903 (citing BOSE\_SUB-0000274-360 at 289, 290, 297 and BOSE\_SUB-0000361-448 at 385-  
13 386)) – not a Bose Lifestyle 50 System that does not have Bose link capability: and (iii) the Bose  
14 link communication protocol (*id.* at ¶ 904 (citing BOSE\_SUB-0000594-601 at 595-596)) – which,  
15 as explained above, is not utilized by or compatible with the Bose Lifestyle 50 System. For these  
16 reasons alone, Dr. Schonfeld's theory is flawed and he has failed to prove that the actual Bose  
17 Lifestyle 50 System discloses the claimed "zone scene" functionality.

18 1292. Regardless, none of the disclosures that Dr. Schonfeld identifies teach a "zone  
19 scene."

20 1293. To start, Dr. Schonfeld does not even attempt to explain how what he points to  
21 meets the actual requirements of a "zone scene," which requires a user-customized, pre-saved  
22 group of "zone players" that is able to exist in an inactive state while remaining available for  
23 selection by a user so that it can later be invoked on demand for synchronous playback. *See*  
24 Schonfeld Op. Report at ¶¶ 899-904. For example, with respect to the actual Bose Lifestyle 50  
25 System, Dr. Schonfeld merely states that "Bose LifeStyle allows for the addition of multiple rooms  
26 and zones to the be added to the Lifestyle ecosystem, and provides for the ability to operate in  
27 multiple rooms" and then points to various disclosure in the Owner's Guide related to setting up a  
28 "shared source group" using the "ROOM" and "HOUSE" buttons of the Personal Music Center of

1 the Bose Lifestyle 50 System. *Id.* at ¶ 901. Dr. Schonfeld's assertion here does not explain how  
2 the disclosure he cites to meets the actual requirements of a "zone scene," which requires a user-  
3 customized, pre-saved group of "zone players" that is able to exist in an inactive state while  
4 remaining available for selection by a user so that it can later be invoked on demand for  
5 synchronous playback. Regardless, I have already explained above why a "shared source group"  
6 in the Bose Lifestyle 50 System is not a "zone scene."

7 1294. Turning to his reliance on a Bose Freespace system, Dr. Schonfeld merely states  
8 that "Bose Lifestyle explicitly allows for multiple zones and operation" and then points to various  
9 disclosure related to the four "zones" of a Bose Freespace system. Schonfeld Op. Report at ¶ 902.  
10 Merely "allow[ing] for multiple zones and operation" does not teach a "zone scene," which  
11 requires a user-customized, pre-saved group of "zone players" that is able to exist in an inactive  
12 state while remaining available for selection by a user so that it can later be invoked on demand  
13 for synchronous playback. Moreover, as I explained above, the Bose FreeSpace E4 product  
14 "allow[s] for an input source to be routed to any of the four amplifier outputs," which allows for  
15 audio distribution for up to four different "zones." BOSE\_SUB-0000062-136 at 74. As shown  
16 and described in the Bose Freespace Owner's Guide, "[s]peaker systems in up to four zones can  
17 be connected to the ZONE OUT amplifier outputs" using "the speaker cable from each zone." *Id.*  
18 at 93. I have not seen any evidence that the four individual "zones" can be combined together  
19 and/or have any overlapping speaker systems.

20 1295. With respect to the "Multi-zone paging" disclosure in the cited by Dr. Schonfeld, I  
21 fail to see how this teaches a "zone scene," which requires a user-customized, pre-saved group of  
22 "zone players" that is able to exist in an inactive state while remaining available for selection by a  
23 user so that it can later be invoked on demand for synchronous playback. BOSE\_SUB-0000062-  
24 136 at 122.

25 1296. At best, the "ALL" paging button provided on the "Multi-zone paging user  
26 interface" appears to be similar to the hard-coded HOUSE button of the Personal Music Center.  
27 Thus, for the same reasons I explained above with respect to the HOUSE button, the "ALL" paging  
28 button in a Bose Freespace system does not teach a "zone scene." Further, there is nothing in this

1 disclosure that would allow a user to group any of the other four “paging zones” together. Thus,  
2 even if the “ALL” paging button were a “zone scene” (it is not), there would be no way to create  
3 two different, overlapping groups of “zone scenes,” as required by Asserted Claim 1 of the ’966  
4 Patent.

5 1297. I also fail to see how the “Two-Zone System” and “Four-Zone System” figures  
6 cited by Dr. Schonfeld teach a “zone scene,” which requires a user-customized, pre-saved group  
7 of “zone players” that is able to exist in an inactive state while remaining available for selection  
8 by a user so that it can later be invoked on demand for synchronous playback. BOSE\_SUB-  
9 0000140 at 144-145. Instead, these figures merely explain how different “sources” are routed to  
10 different “zones” in a two- or four-zone system.

11 1298. Turning to Dr. Schonfeld’s reliance on the SA-2 and SA-3 Amplifier Guide, Dr.  
12 Schonfeld merely states that “Bose LifeStyle also allows for playing in multiple rooms.” *See*  
13 Schonfeld Op. Report at ¶ 903. Merely “allow[ing] for playing in multiple rooms” does not teach  
14 a “zone scene,” which requires a user-customized, pre-saved group of “zone players” that is able  
15 to exist in an inactive state while remaining available for selection by a user so that it can later be  
16 invoked on demand for synchronous playback. While is it unclear what exactly Dr. Schonfeld is  
17 relying on in the SA-2 and SA-3 Amplifier Guide, it appears that he may be relying on the  
18 following disclosure related to the ability to add additional rooms:  
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## Setting Up Additional Rooms For Sound

English

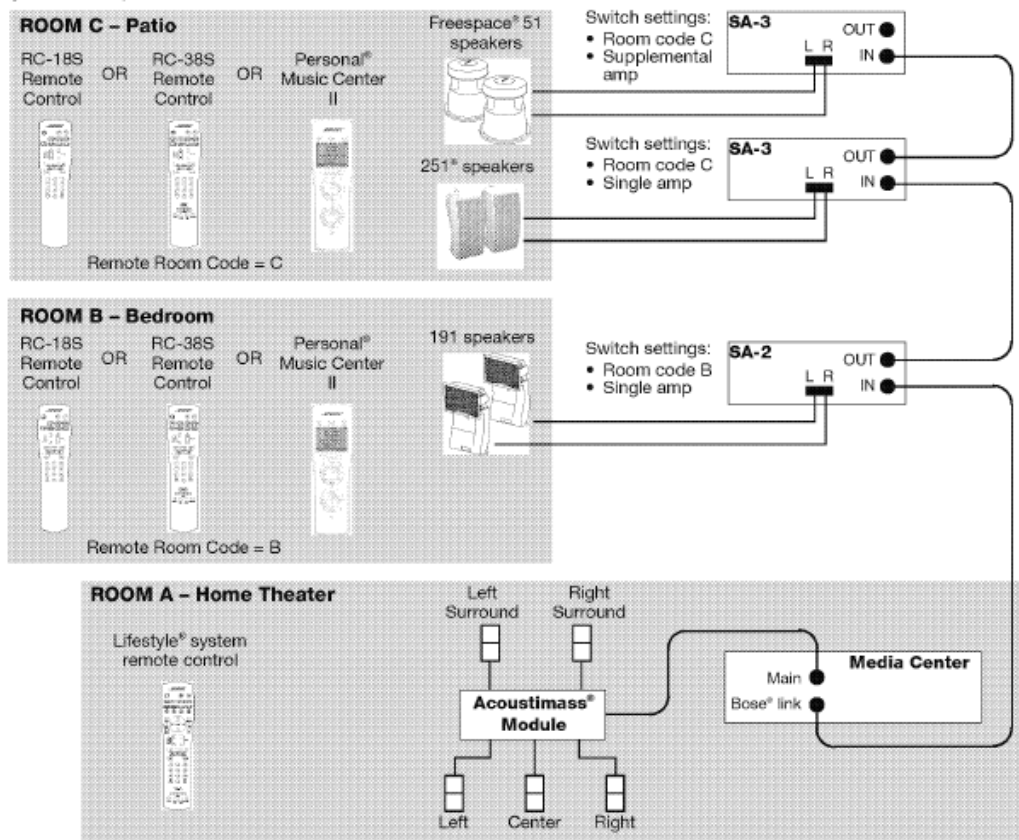
### Setup guidelines for additional rooms

If you have a Lifestyle® 18 series II, 28 series II, 38 or 48 home entertainment system, you can experience stereo sound in up to 14 other rooms using Lifestyle® stereo amplifiers, compatible speaker systems and remote controls for the other rooms.

- Remote controls for other rooms must be set to the same house code as the main room remote, but each remote must be set to a different room code. See "Setting up remote controls for other rooms" on page 23.
- The Lifestyle® amplifier and its remote control must be set to the same room code. See "Setting up the amplifier room code" on page 24.
- When using more than one amplifier to power more than two speakers in a room (Figure 18, room C), all amplifiers must be set to the same room code. Also, one amplifier must be set to the single amp mode and all others must be set to the supplemental amp mode. See "Single and supplemental amplifiers" on page 25.

**Figure 18**

Sample installation of Lifestyle® stereo amplifiers



22

BOSE\_SUB-0000297

1 (“[T]he Bose Link communication protocol allows for an indication that additional rooms, for  
2 example, have been added to the media center.”).

3 1299. Although unclear, in this regard Dr. Schonfeld appears to be asserting that manually  
4 hardwiring additional SA-2 or SA-3 amplifiers in additional rooms to a Bose link enabled Lifestyle  
5 media center teaches a “zone scene.” *Id.* I disagree. The mere fact that a user can manually  
6 hardwire additional SA-2 or SA-3 amplifiers in additional rooms to a Bose link enabled Lifestyle  
7 media center does not teach a “zone scene,” which requires a user-customized, pre-saved group of  
8 “zone players” that is able to exist in an inactive state while remaining available for selection by a  
9 user so that it can later be invoked on demand for synchronous playback. Such a theory is flawed  
10 for numerous reasons.

11 1300. First, manually hardwiring SA-2 or SA-3 amplifiers to a Bose link enabled Lifestyle  
12 media center does not involve a user creating a group of SA-2 or SA-3 amplifiers using a  
13 “computing device” whereby the group is user-customized and pre-saved group at the user’s  
14 request, which is a required aspect of a “zone scene.”

15 1301. Second, manually hardwiring SA-2 or SA-3 amplifiers to a Bose link enabled  
16 Lifestyle media center does not result in a group of SA-2 or SA-3 amplifiers that are “to be  
17 configured for synchronous [media] playback” at a future time when the group is invoked, which  
18 is another required aspect of a “zone scene.” Instead, the evidence I reviewed indicates that SA-2  
19 or SA-3 amplifiers that are hardwired in series to a Bose link connector can play different audio  
20 (stream 1 or stream 2) depending on the configuration of their corresponding dedicated remote  
21 controls. BOSE\_SUB-0000594-601 at 597 (explaining that “[a] Bose link enabled media center  
22 is also capable of managing two separate sources at the same time,” “any of the expansion rooms  
23 can be configured to operate on either stream 1 or stream 2,” and “[i]f an expansion remote  
24 configured for stream 1 sends an ON command to the media center, the media center will activate  
25 the pins that carry stream 1 information”).

26 1302. Third, because an SA-2 or SA-3 amplifier can only be selected individually via its  
27 own dedicated remote control, it was not possible for a group of multiple SA-2 or SA-3 amplifiers  
28 in different rooms to be selected for invocation, which is another required aspect of a “zone scene.”

1 As explained above, the evidence I reviewed indicates that each such SA-2 or SA-3 amplifier could  
2 only be controlled by its own dedicated Bose link enabled remote control that was set to the same  
3 room code as the SA-2 or SA-3 amplifier. *See* BOSE\_SUB-0000361-448 at 384-386 (“Remote  
4 controls for other rooms must be set to the same house code as the main room remote, but each  
5 remote must be set to a different room code. ... The Lifestyle® amplifier and its remote control  
6 must be set to the same room code.”). Because each dedicated remote control is coded to only a  
7 *single* amplifier, there is no remote control that enables the selection of a group of *multiple*  
8 amplifiers for invocation. And I have seen no evidence that multiple SA-2 or SA-3 amplifiers that  
9 are hardwired to a Bose link enabled Lifestyle media center could be controlled together with a  
10 single Bose link enabled remote control. Notably, as explained above, based on the evidence I  
11 reviewed, the Personal Music Center of the Bose Lifestyle 50 System was not Bose link enabled  
12 and therefore could not be used to control multiple SA-2 or SA-3 amplifiers that are hardwired to  
13 a Bose link enabled Lifestyle media center. To the contrary, the Personal Music Center and Multi-  
14 Room Interface of the Bose Lifestyle 50 System communicate using a proprietary radio frequency  
15 communication protocol that was specifically developed for the Bose Lifestyle 50 System and that  
16 is “not compatible” with protocols used in other Bose systems. *See* BOSE\_SUB-0000663-683 at  
17 666.

18 1303. I also note that Dr. Schonfeld cites to a disclosure of the Personal Music Center in  
19 the SA-2 and SA-3 Amplifier Guide. Schonfeld Op. Report at ¶ 903 (citing at BOSE\_SUB-  
20 0000274-360 at 289). To be clear, this disclosure related to using the Personal Music Center with  
21 a Multi-Room Interface that does not have a Bose link connector – not using the Personal Music  
22 Center with a “Bose link enabled media center.”

23 1304. Moreover, as explained above, in order for SA-2 and SA-3 amplifiers that are  
24 hardwired to a Bose link enabled Lifestyle media center to be able to playback the same audio  
25 simultaneously, the SA-2 and SA-3 amplifiers need to first be set to the same stream of audio  
26 (stream 1 or stream 2). *See, e.g.,* BOSE\_SUB-0000594-601 at 597. In this regard, the SA-2 and  
27 SA-3 amplifiers that are hardwired to a Bose link enabled Lifestyle media center share a “stream”  
28 of audio and thus rely upon the same “shared source” form of grouping as the Bose LifeStyle 50

1 System. Thus, for the same reasons that the “shared source” functionality of the Bose Lifestyle 50  
2 System fails to teach the “zone scenes” capability required by Asserted Claim 1 of the ’966 Patent,  
3 this Bose link configuration relied on by Dr. Schonfeld also fails to teach the “zone scenes”  
4 capability.

5 1305. Turning to the additional requirement of the Asserted Claim 1 of the ’966 Patent  
6 that the claimed “computing device” be programmed with functional capability for causing the  
7 creation of two overlapping “zone scenes” that co-exist with one another and are both available  
8 for selection by a user at the same time, Dr. Schonfeld opines that a Lifestyle player for a Bose  
9 Lifestyle 50 System would have met this requirement as well, based exclusively on the following  
10 theory: “[T]he Bose Lifestyle expressly teaches managing two separate streaming sources at one  
11 time, such that room A can operate on stream 1, and room B can operate stream 2, for example.”  
12 Schonfeld Op. Report at ¶ 907. However, this theory is flawed for a number of reasons.

13 1306. First, Dr. Schonfeld’s opinion that the Bose Lifestyle 50 System discloses two  
14 different, overlapping “zone scenes” each comprising a user-customized, pre-saved group of “zone  
15 players” that is able to exist in an inactive state while remaining available for selection by a user  
16 so that it can later be invoked on demand for synchronous playback is not based on any  
17 functionality of the actual Bose Lifestyle 50 System itself. *See* Schonfeld Op. Report at ¶ 907.  
18 Instead, Dr. Schonfeld relies exclusively on disclosure related to the Bose link communication  
19 protocol (*id.* at ¶ 907 (citing BOSE\_SUB-0000594-601 at 597) – which, as explained above, is not  
20 utilized by or incompatible with the Bose Lifestyle 50 System. For this reason alone, Dr.  
21 Schonfeld’s theory is meritless.

22 1307. Second, I fail to see how Dr. Schonfeld’s theory has any relevance to the  
23 requirement that a “computing device” be programmed with functional capability for causing the  
24 creation of two overlapping “zone scenes” that co-exist with one another and are both available  
25 for selection by a user at the same time, this functionality is also not possible with the Bose  
26 Lifestyle 50 System. Instead, per Dr. Schonfeld’s own words, his theory is based on the Bose link  
27 communication protocol enabling a single room A (not a group of rooms) being able to play audio  
28 provided via stream 1 and a single room B (not a group of rooms) being able to play audio provided

1 via stream 2. This has nothing to do with groups of Lifestyle players period, let alone two  
2 overlapping “zone scenes” that co-exist with one another and are both available for selection by a  
3 user at the same time. Instead, what Dr. Schonfeld describes is just two separate rooms being able  
4 to play two separate streams of audio.

5 1308. Third, if Dr. Schonfeld is suggesting that the Bose link technology allows a group  
6 of Lifestyle players to be defined by the stream of audio (stream 1 or stream 2) that they are  
7 configured to play, any given Lifestyle player can only be configured to play a single stream of  
8 audio at a given time. Thus, a Lifestyle player could never be a member of two different co-  
9 existing groups that are defined by different streams of audio. For example, the only way a  
10 Lifestyle player in a first group of Lifestyle players configured for stream 1 could have been added  
11 to a second group of Lifestyle players configured for stream 2 would be to destroy the first group  
12 by changing the audio stream for the Lifestyle player from stream 1 to stream 2 using the Lifestyle  
13 player’s dedicated remote control. *See, e.g.*, BOSE\_SUB-0000594-601 at 597 (If an expansion  
14 remote configured for stream 1 sends an ON command to the media center, the media center will  
15 activate the pins that carry stream 1 information.”); BOSE\_SUB-0000361-448 at 384-386  
16 (“Remote controls for other rooms must be set to the same house code as the main room remote,  
17 but each remote must be set to a different room code. ... The Lifestyle® amplifier and its remote  
18 control must be set to the same room code.”).

19 1309. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that the Bose  
20 Lifestyle 50 System did not have a “computing device” with any functional capability for creating  
21 or invoking a “zone scene” – let alone the required functional capability to cause the creation of  
22 two different, overlapping “zone scenes” that are both available for selection by a user and then  
23 later cause selected one of the two different “zone scenes” to be invoked.

24 **iv. The Bose Lifestyle 50 System Did Not Meet Limitations 1.4 / 1.5**

25 1310. When read together, limitations 1.4 and 1.5 of Asserted Claim 1 of the ’966 Patent  
26 require the “computing device” to be encoded with executable “program instructions” that cause  
27 the computing device to perform the following function(s):  
28

[1.4] while serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players, wherein the first zone player is operating in a standalone mode in which the first zone player is configured to play back media individually:

[1.5] receiving a first request to create a first zone scene comprising a first predefined grouping of zone players including at least the first zone player and a second zone player that are to be configured for synchronous playback of media when the first zone scene is invoked;

1311. In my opinion, the Bose Lifestyle 50 System did not meet this requirement.

1312. As explained above, the evidence I have reviewed establishes that the Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-Room Interface<sup>56</sup>) in the Bose Lifestyle 50 System was only capable of receiving requests to form ad-hoc “shared source groups,” which are not the claimed “zone scenes” for the reasons explained above. Thus, for this reason, the Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle 50 System did not have the required functional capability to “receiv[e] a *first request to create a first zone scene* comprising a first predefined grouping of [Lifestyle players] including at least the first [Lifestyle player] and a second [Lifestyle player] that are to be configured for synchronous playback of media when the first zone scene is invoked.”

1313. Moreover, the hard-coded “HOUSE” option of the Bose Lifestyle 50 System that is relied upon by Dr. Schonfeld fails to meet these limitations for the additional reason that a Sonos controller would have never received any “request to create” the hard-coded “HOUSE” option.

1314. Despite this clear evidence establishing that the Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle 50 System did not have any “zone scenes” capability, Dr. Schonfeld nevertheless opines that claim limitations

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<sup>56</sup> Although unclear, some of Dr. Schonfeld’s demonstratives that were provided with his Opening Report appear to map the combination of the Personal Music Center and the Multiroom-room interface to the “network device” and the Jewel Cube speakers to the “zone players” of Asserted Claim 1 of the ’885 Patent.

1 1.4 and 1.5 of Asserted Claim 1 of the '966 Patent were either disclosed or rendered obvious by  
2 the Bose Lifestyle 50 System. *See* Schonfeld Op. Report at ¶¶ 1038-1039. However, I find Dr.  
3 Schonfeld's opinions regarding the Bose Lifestyle 50 System and claim limitations 1.4 and 1.5 of  
4 Asserted Claim 1 of the '966 Patent to be flawed for several reasons.

5 1315. As an initial matter, the entirety of Dr. Schonfeld's discussion regarding the Bose  
6 Lifestyle 50 System and claim limitations 1.4 and 1.5 of Asserted Claim 1 of the '966 Patent is  
7 shown in the screenshots below from Dr. Schonfeld's Opening Report:  
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(v) *Limitation 1.4 "while serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players, wherein the first zone player is operating in a standalone mode in which the first zone player is configured to play back media individually:"*

1038. *See supra* '885 claim 1, "network device" disclosure in, e.g., 1.6, 1.7, 1.9, "network interface" disclosure in, e.g., 1.1, "zone player" disclosure in e.g., preamble, 1.1, 1.4-1.7, 1.9-1.10, "standalone mode" disclosure in e.g., 1.5, 1.8, 1.10.

(vi) *Limitation 1.5 receiving a first request to create a first zone scene comprising a first predefined grouping of zone players including at least the first zone player and a second zone player that are to be configured for synchronous playback of media when the first zone scene is invoked;*

1039. *See supra* '885 claim 1, Limitation 1.6. Included in my incorporation by reference is my discussion of the "first zone scene" disclosure in, e.g., 1.6. I include in my incorporation by reference the discussion of the creation of the first zone scene, its composition, its synchronous playback configuration, and the ability of invocation of that zone scene. Additionally, dependent claim 6 of the '966 patent informs the scope of independent claim 1. Dependent claim 6 of the '966 patent recites that "wherein the first predefined grouping of zone players does not include the third zone player, and wherein the second predefined grouping of zone players does not include the second zone player," effectively requiring that the first and second predefined groupings of zone players not be entirely overlapping, each with the same three zone players. Because claim 6 depends from claim 1 and must necessarily narrow the scope of claim 1, I understand that claim 1 includes first and second predefined groupings of zone players, where those groupings of zone players can wholly overlap. Indeed, such an overlap scenario would be consistent e.g., with a user having a user-created zone group including all three zone players, and having a "Party Mode," i.e., a zone group including all three zone players. I therefore incorporate by reference the disclosure of "party mode" from my discussion, *supra*, regarding claim 1 of the '885 patent.

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2 1316. As these screenshots demonstrate, Dr. Schonfeld has not provided any analysis of  
3 how the Bose Lifestyle 50 System allegedly meets these limitations of Asserted Claim 1 of the  
4 '966. Instead, Dr. Schonfeld is relying exclusively on his prior discussion of the Bose Lifestyle  
5 50 System in the context of certain claim limitations of the '885 Patent with the exception of the  
6 latter part of paragraph 1039, where he discusses dependent claim 6 and Sonos's "shared source  
7 group" and "Party Mode" functionality. However, the Asserted Claims of the '966 Patent are  
8 directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing  
9 device" configured to "serv[e] as a controller" as opposed to a "zone player"), claim limitations  
10 1.4 and 1.5 of Asserted Claim 1 of the '966 Patent use different claim language than the limitations  
11 of Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation  
12 as to how his prior discussion of the Bose Lifestyle 50 System in the context of the claim  
13 limitations of Asserted Claim 1 of the '885 Patent applies to claim limitations 1.4 and 1.5 of  
14 Asserted Claim 1 of the '966 Patent. In fact, Dr. Schonfeld fails to even state whether his opinion  
15 is that claim limitations 1.4 and 1.5 of Asserted Claim 1 of the '966 Patent were actually *disclosed*  
16 by the Bose Lifestyle 50 System versus whether his opinion is that claim limitations 1.4 and 1.5  
17 of Asserted Claim 1 of the '966 Patent were only *rendered obvious* by the Bose Lifestyle 50  
18 System. And along similar lines, Dr. Schonfeld never once articulates what he considers to be the  
19 claimed "first request to create a first zone scene" in the Bose Lifestyle 50 System. For these  
20 reasons, I disagree that Dr. Schonfeld's barebones discussion of claim limitations 1.4 and 1.5 of  
21 Asserted Claim 1 of the '966 Patent amounts to a detailed and complete statement of all opinions  
22 to be expressed and the basis and reasons therefor, which I understand to be the governing standard  
23 for expert reports, and that barebones discussion has prejudiced my ability to fully discern, assess,  
24 and respond to his opinions regarding claim limitations 1.4 and 1.5 of Asserted Claim 1 of the '966  
25 Patent.<sup>57</sup>

26 1317. With that said, as I have discussed above in Section XV.C.1.iii as well as in my

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27 <sup>57</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

1 '885 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's analysis of  
2 the Bose Lifestyle 50 System in the context of Asserted Claim 1 of the '885 Patent suffers from a  
3 number of flaws, many of which are applicable to claim limitations 1.4 and 1.5 of Asserted Claim  
4 1 of the '966 Patent as well – including that he relies on functionality that is not even part of the  
5 actual Bose Lifestyle 50 System, that he fails to identify what he is alleging to meet the various  
6 aspects of these claim limitations, and that his analysis is premised on both an incorrect  
7 interpretation of what is required to qualify as a “zone scene” and an inaccurate and misleading  
8 characterization of the Bose Lifestyle 50 System functionality and the evidence related thereto.

9 1318. Lastly, the latter part of paragraph 1039 where he discusses dependent claim 6 and  
10 Sonos's “zone group” and “Party Mode” functionality appears to be a verbatim copy of paragraph  
11 972 from the section of Dr. Schonfeld's Opening Report related to Sonos's 2005 system, which I  
12 already addressed above. I fail to see how this paragraph discussing Sonos's “zone group” and  
13 “Party Mode” functionality has any relevance to the Bose Lifestyle 50 System, which did not have  
14 “zone groups” or a hard-coded “All Zones-Party Mode” option, and it appears to me that Dr.  
15 Schonfeld's inclusion of this paragraph in his section directed to the Bose Lifestyle 50 System may  
16 have been a copy/paste error.

17 1319. Thus, nothing in Dr. Schonfeld's Opening Report alters my opinion that the  
18 Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be  
19 relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
20 in the Bose Lifestyle 50 System did not have the functional capability required by limitations 1.4  
21 / 1.5 of Asserted Claim 1 of the '966 Patent.

22 **v. The Bose Lifestyle 50 System Did Not Meet Limitations 1.4 / 1.6**

23 1320. When read together, limitations 1.4 and 1.6 of Asserted Claim 1 of the '966 Patent  
24 require the “computing device” to be encoded with executable “program instructions” that cause  
25 the computing device to perform the following function(s):

26 [1.4] while serving as a controller for a networked media playback system comprising a  
27 first zone player and at least two other zone players, wherein the first zone player is  
28 operating in a standalone mode in which the first zone player is configured to play back  
media individually:

...

[1.6] based on the first request, i) causing creation of the first zone scene, ii) causing an indication of the first zone scene to be transmitted to the first zone player, and iii) causing storage of the first zone scene;

1321. In my opinion, the Bose Lifestyle 50 System did not meet this requirement.

1322. As explained above, the evidence I have reviewed establishes that the Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle 50 System was only capable of forming ad-hoc “shared source groups,” which are not the claimed “zone scenes” for the reasons explained above. Thus, for this reason, the Personal Music Center (and any other controller that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle 50 System did not have the required functional capability to “i) caus[e] creation of the first zone scene, ii) caus[e] an indication of the first zone scene to be transmitted to the first [Lifestyle player], and iii) caus[e] storage of the first zone scene.”

1323. Moreover, the hard-coded “HOUSE” option of the Bose Lifestyle 50 System that is relied upon by Dr. Schonfeld above fails to meet these limitations for the additional reason that the Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-Room Interface) of the Bose Lifestyle 50 System would have never received any “request to create” the hard-coded “HOUSE” option and also would have never “caus[ed] creation of” the hard-coded “HOUSE” option, “caus[ed] an indication of” the hard-coded “HOUSE” option to be “transmitted to the first [Lifestyle player],” or “caus[ed] storage of” the hard-coded “HOUSE” option.

1324. Despite this clear evidence establishing that the Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle 50 System did not have any “zone scenes” capability, Dr. Schonfeld nevertheless opines that claim limitations 1.4 and 1.6 of Asserted Claim 1 of the '966 Patent were either disclosed or rendered obvious by

1 the Bose Lifestyle 50. See Schonfeld Op. Report at ¶¶ 1038, 1040. However, I find Dr.  
2 Schonfeld's opinions regarding the Bose Lifestyle 50 System and claim limitations 1.4 and 1.6 of  
3 Asserted Claim 1 of the '966 Patent to be flawed for several reasons.

4 1325. As an initial matter, the entirety of Dr. Schonfeld's discussion regarding the Bose  
5 Lifestyle 50 System and claim limitations 1.4 and 1.6 of Asserted Claim 1 of the '966 Patent is  
6 shown in the screenshots below from Dr. Schonfeld's Opening Report:

7 (v) *Limitation 1.4 "while serving as a controller for a networked media*  
8 *playback system comprising a first zone player and at least two*  
9 *other zone players, wherein the first zone player is operating in a*  
10 *standalone mode in which the first zone player is configured to play*  
11 *back media individually."*

12 1038. See *supra* '885 claim 1, "network device" disclosure in, e.g., 1.6, 1.7, 1.9, "network  
13 interface" disclosure in, e.g., 1.1., "zone player" disclosure in e.g., preamble, 1.1, 1.4-1.7, 1.9-1.10,  
14 "standalone mode" disclosure in e.g., 1.5, 1.8, 1.10.

15 (vii) *Limitation 1.6 based on the first request, i) causing creation of the*  
16 *first zone scene, ii) causing an indication of the first zone scene to*  
17 *be transmitted to the first zone player, and iii) causing storage of*  
18 *the first zone scene;*

19 1040. See *supra* '885 claim 1, Limitation 1.6.

20 1326. As these screenshots demonstrate, Dr. Schonfeld is relying exclusively on his prior  
21 discussion of the Bose Lifestyle 50 System in the context of certain claim limitations of the '885  
22 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device  
23 than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a  
24 controller" as opposed to a "zone player"), claim limitations 1.4 and 1.6 of Asserted Claim 1 of  
25 the '966 Patent use different claim language than the limitations of Asserted Claim 1 of the '885  
26 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion  
27 of the Bose Lifestyle 50 System in the context of the claim limitations of Asserted Claim 1 of the  
28 '885 Patent applies to claim limitations 1.4 and 1.6 of Asserted Claim 1 of the '966 Patent. In fact,  
Dr. Schonfeld fails to even state whether his opinion is that claim limitations 1.4 and 1.6 of  
Asserted Claim 1 of the '966 Patent were actually *disclosed* by the Bose Lifestyle 50 System versus

1 whether his opinion is that claim limitations 1.4 and 1.6 of Asserted Claim 1 of the '966 Patent  
2 were only *rendered obvious* by the Bose Lifestyle 50 System. And along similar lines, Dr.  
3 Schonfeld never articulates what he considers to be the claimed functions of “i) causing creation  
4 of the first zone scene, ii) causing an indication of the first zone scene to be transmitted to the first  
5 zone player, and iii) causing storage of the first zone scene” in the Bose Lifestyle 50 System. For  
6 these reasons, I disagree that Dr. Schonfeld’s barebones discussion of claim limitations 1.4 and  
7 1.6 of Asserted Claim 1 of the '966 Patent amounts to a detailed and complete statement of all  
8 opinions to be expressed and the basis and reasons therefor, which I understand to be the governing  
9 standard for expert reports, and that barebones discussion has prejudiced my ability to fully  
10 discern, assess, and respond to his opinions regarding claim limitations 1.4 and 1.6 of Asserted  
11 Claim 1 of the '966 Patent.<sup>58</sup>

12 1327. With that said, as I have discussed above in Section XV.C.1.iii as well as in my  
13 '885 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld’s analysis of  
14 the Bose Lifestyle 50 System in the context of Asserted Claim 1 of the '885 Patent suffers from a  
15 number of flaws, many of which are applicable to claim limitations 1.4 and 1.6 of Asserted Claim  
16 1 of the '966 Patent as well – including that he relies on functionality that is not even part of the  
17 actual Bose Lifestyle 50 System, that he fails to identify what he is alleging to meet the various  
18 aspects of these claim limitations, and that his analysis is premised on both an incorrect  
19 interpretation of what is required to qualify as a “zone scene” and an inaccurate and misleading  
20 characterization of the Bose Lifestyle 50 System functionality and the evidence related thereto.

21 1328. For instance, Dr. Schonfeld’s opinion that the Bose Lifestyle 50 System meets  
22 limitation 1.6 of Asserted Claim 1 of the '885 Patent (upon which he relies for limitation 1.6 of  
23 Asserted Claim 1 of the '966 Patent) is based in part on functionality that is not related to or  
24 compatible with the actual Bose Lifestyle 50 System itself. *See* Schonfeld Op. Report at ¶¶ 899-  
25 904. Indeed, in addition to relying on setting up a “shared source group” using the “ROOM” and  
26 “HOUSE” buttons of the Personal Music Center of the Bose Lifestyle 50 System (*id.* at ¶ 901

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27 <sup>58</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.



(citing BOSE\_SUB-0000001 at 40, 43), which I explained above, Dr. Schonfeld also relies on disclosure related to (i) the Bose Freespace E4 system (*id.* at ¶ 902 (citing BOSE\_SUB-0000062 at 122 and BOSE\_SUB-0000140 at 144-145) which, as explained above, is not utilized by or compatible with the Bose Lifestyle 50 System, (ii) setting up SA-2 and/or SA-3 Amplifiers in “additional rooms” using Bose link technology of a Bose “Lifestyle 18 series II, 28 series II, 38 or 48 home entertainment system” (*id.* at ¶ 903 (citing BOSE\_SUB-0000274-360 at 289, 290, 297 and BOSE\_SUB-0000361-448 at 385-386)) – not a Bose Lifestyle 50 System that does not have Bose link capability: and (iii) the Bose link communication protocol (*id.* at ¶ 904 (citing BOSE\_SUB-0000594-601 at 595-596)) – which, as explained above, is not utilized by or compatible with the Bose Lifestyle 50 System. For these reasons alone, Dr. Schonfeld’s theory is flawed and he has failed to prove that the actual Bose Lifestyle 50 System discloses the claimed “zone scene” functionality of claim limitations 1.4 and 1.6 of Asserted Claim 1 of the ’966 Patent.

1329. Further examples of why Dr. Schonfeld’s analysis is flawed are set forth below, where I have separated reasons related to the actual Bose Lifestyle 50 System and Dr. Schonfeld’s alleged Bose Lifestyle 50 System.<sup>59</sup>

#### Actual Bose Lifestyle 50 System

1330. First, when discussing the actual Bose Lifestyle 50 System and claim limitation 1.6 of Asserted Claim 1 of the ’885 Patent, Dr. Schonfeld relies exclusively on the functionality in the Bose Lifestyle 50 System for forming ad-hoc “shared source groups,” which are not the claimed “zone scenes” for all of the reasons I have previously explained in Section XV.C.1.iii.

1331. Second, when discussing the actual Bose Lifestyle 50 System and claim limitation 1.6 of Asserted Claim 1 of the ’885 Patent, Dr. Schonfeld did not identify any “first indication that the first zone player has been added to a first zone scene.” As I previously explained in my ’885 Rebuttal Report regarding Asserted Claim 1 of the ’885 Patent, this is not surprising because the

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<sup>59</sup> Note that while I have sometimes separately addressed the shortcomings of the actual Bose Lifestyle 50 System and Dr. Schonfeld’s alleged Bose Lifestyle 50 System with respect to limitations 1.4-1.11, it should be understood that these shortcomings can be considered together depending on how Dr. Schonfeld intends on combining the various Bose products upon which he relies, which is currently unclear.



1 Bose Lifestyle 50 System does not disclose “a first indication that [the Lifestyle player] has been  
2 added to a first zone scene,” as required by limitation 1.6 of the ’885 Patent. And for similar  
3 reasons to those explained in my ’885 Rebuttal Report regarding Asserted Claim 1 of the ’885  
4 Patent, the Bose Lifestyle 50 System does not disclose an “indication” of a “first zone scene,” as  
5 required by limitation 1.6 of Asserted Claim 1 of the ’966 Patent.

6 1332. As an initial matter, because a “shared source group” is not a “zone scene” for all  
7 of the reasons explained above, there can’t possibly be an “indication” of a “first zone scene.”

8 1333. Moreover, even setting aside the fundamental differences between a “shared source  
9 group” and a “zone scene,” the Bose Lifestyle 50 System evidence that I have reviewed establishes  
10 that, when a user set up a “shared source group” of Lifestyle players using the Personal Music  
11 Center of the Bose Lifestyle 50 System, the Personal Music Center would communicate with the  
12 centralized Multi-Room Interface (not to the Lifestyle players), which would cause the Multi-  
13 Room Interface to configure itself to distribute the same audio from the same audio source to each  
14 of the rooms so that the same audio could be played back simultaneously via the Lifestyle players.  
15 *See, e.g.* BOSE\_SUB-0000001-55 at 6, 12, 17, 19, 44-45; BOSE\_SUB-0000684-687 at 684-685.  
16 In other words, a Lifestyle player would not receive any information from the Personal Music  
17 Center but instead would merely receive audio from the Multi-Room Interface but audio alone is  
18 not an “indication” of a “shared source group.” Moreover, I have not seen any evidence as to what  
19 information would even be communicated from the Personal Music Center would communicate  
20 with the centralized Multi-Room Interface.

21 1334. Dr. Schonfeld disputes my assertion that the Personal Music Center would only  
22 communicate with the centralized Multi-Room Interface and not the Lifestyle players and states  
23 that the documentation I have relied on “refers to ‘radio links’ that transmits data to and from  
24 playback speakers.” *See* Schonfeld Op. Report at ¶ 734. However, I see no support in these  
25 documents for Dr. Schonfeld’s assertion. Instead, the documents I cite only refer to a “radio link”  
26 between the Personal Music Center and the Multi-Room Interface. *See, e.g.* BOSE\_SUB-  
27 0000001-55 at 19 (“When batteries are first installed in the music center; it sets up a radio-  
28 frequency link with the closest multi-room interface.... If the music center continuously displays

1 "NO RESPONSE," you need to try to establish its link with the multi-room interface again."), 45  
2 ("To add a new music center to your system, follow the setup instructions on page 17. Be sure to  
3 install the batteries and turn it on for the first time close to the multi-room interface to allow the  
4 new music center to set up a radio frequency link with your system. If the multi-room interface is  
5 not plugged in or the music center is out of range, the display indicates NO RESPONSE."),  
6 BOSE\_SUB-0000684-687 at 685 (describing the "Multi-room interface" as a "[s]mall, hideaway  
7 connection box transmits data to, and receives data from, the Personal music center via a radio  
8 data link.").

9 1335. Third, even setting aside the fundamental differences between a "shared source  
10 group" and a "zone scene," Dr. Schonfeld has not identified (and I have not seen) any evidence of  
11 the Personal Music Center or any other device in the Bose Lifestyle 50 System "causing storage"  
12 of a "shared source group."

13 1336. Thus, nothing in Dr. Schonfeld's Opening Report alters my opinion that the  
14 Personal Music Center (and any other alleged "computing device" that Dr. Schonfeld may be  
15 relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
16 in the Bose Lifestyle 50 System did not have the functional capability required by limitations 1.4  
17 / 1.6 of Asserted Claim 1 of the '966 Patent.

18 Dr. Schonfeld's alleged Bose Lifestyle 50 System

19 1337. First, in his section discussing his alleged version of the Bose Lifestyle 50 System  
20 and claim limitation 1.6 of Asserted Claim 1 of the '885 Patent, Dr. Schonfeld relies on  
21 functionality related to (i) the Bose Freespace E4 system (Schonfeld Op. Report at ¶ 902 (citing  
22 BOSE\_SUB-0000062 at 122 and BOSE\_SUB-0000140 at 144-145), (ii) setting up SA-2 and/or  
23 SA-3 Amplifiers in "additional rooms" using Bose link technology of a Bose "Lifestyle 18 series  
24 II, 28 series II, 38 or 48 home entertainment system" (*id.* at ¶ 903 (citing BOSE\_SUB-0000274-  
25 360 at 289, 290, 297 and BOSE\_SUB-0000361-448 at 385-386)), and (iii) the Bose link  
26 communication protocol (*id.* at ¶ 904 (citing BOSE\_SUB-0000594-601 at 595-596)). However,  
27 as I have already explained above in Section XV.C.1.iii, the functionality that he relies on for these  
28 various Bose products does not disclose the claimed "zone scene" functionality.

1           1338. Second, although not clear, Dr. Schonfeld appears to be asserted that the “first  
2 indication that the first zone player has been added to a first zone scene” required by limitation 1.6  
3 of the ’885 Patent is disclosed by the Bose Link communication protocol based on a theory that  
4 “the Bose Link communication protocol allows for an indication that [Lifestyle players in]  
5 additional rooms ... have been added to the media center.” *See* Schonfeld Op. Report at ¶ 904.  
6 However, as I previously explained in my ’885 Rebuttal Report regarding Asserted Claim 1 of the  
7 ’885 Patent, I disagree that the Bose Link communication protocol discloses “a first indication that  
8 [the Lifestyle player] has been added to a first zone scene,” as required by limitation 1.6 of the  
9 ’885 Patent. And for similar reasons to those explained in my ’885 Rebuttal Report regarding  
10 Asserted Claim 1 of the ’885 Patent, it is my opinion that the Bose Link communication protocol  
11 does not disclose an “indication” of a “first zone scene,” as required by limitation 1.6 of Asserted  
12 Claim 1 of the ’966 Patent.

13           1339. For instance, in the “Understanding Bose link” document cited by Dr. Schonfeld,  
14 the only information transmitted from a Bose link enabled media center to a Lifestyle player that  
15 is a Bose link expansion product (e.g., an SA-2 or SA-3 Amplifier) is “on/off, volume and source  
16 commands along with audio.” *See* BOSE\_SUB-0000594-601 at 595. The “Understanding Bose  
17 link” document also states that “[e]ach time a source change or on/off command is sent, the  
18 expansion product sends information back to the media center letting it know that it is still on (or  
19 off) and in the same room.” *Id.* These disclosures are consistent with Dr. Schonfeld’s  
20 characterization: “The Bose Link connection is essentially a conversation between the media  
21 center and the expansion device. The media center sends on/off, volume and source change  
22 commands along with audio to the zones. The zones then respond by sending information back to  
23 the media center to let it know that the zone is still active.” Schonfeld Op. Report at ¶ 904.  
24 However, in my opinion, none of this information that is allegedly exchanged between a Bose link  
25 enabled media center and a Lifestyle player that is a Bose link expansion product amounts to an  
26 “indication” of any sort of group of Lifestyle players, let alone an “indication” of a “zone scene.”

27           1340. Dr. Schonfeld’s assertion to the contrary appears to be based on an incorrect  
28 interpretation of what is required to constitute an “indication” of a “zone scene.” In particular, Dr.

1 Schonfeld points to the Court's finding that an "indication" of a "zone scene" need not identify the  
2 other "zone player(s)" within the "zone scene" – which is true – but he then jumps to the conclusion  
3 that *any* message sent to a "zone player" at the time that a "zone scene" is created would constitute  
4 an "indication" of the "zone scene" regardless of the contents of that message. *See* Schonfeld Op.  
5 Report at ¶ 900. In my opinion, this is not how a POSITA would interpret the phrase "indication"  
6 of a "zone scene" in view of the Court's July 21, 2022 order. Rather, a POSITA would understand  
7 that, in order for a message to constitute an "indication" of a "zone scene," the message must  
8 contain some information about the "zone scene" that enables the Lifestyle player to recognize  
9 that it has been added to the "zone scene," such as an identifier of the "zone scene." On/off,  
10 volume, and source change commands does not meet this requirement.

11 1341. Moreover, to the extent that Dr. Schonfeld is asserting that the alleged "indication"  
12 is sent from the Lifestyle player to the Bose link enabled media center, such a theory would fail  
13 for the additional reason that the claim requires the "indication" to be transmitted to the "first zone  
14 player." The Bose link enabled media center cannot possibly be the "first zone player" because  
15 there is only a single Bose link enabled media center in any given system and thus a Bose link  
16 enabled media center could not be added to a "zone scene" with another Bose link enabled media  
17 center. *See, e.g.,* BOSE\_SUB-0000361-448 at 384 (illustrating SA-2 and SA-3 amplifiers  
18 connected to a single Bose link enabled media center).

19 1342. I also note that at paragraph 904, Dr. Schonfeld also asserts that "[i]mportantly, ...  
20 the media center will not acknowledge commands from any zone that is not targeted or invoked."  
21 *See* Schonfeld Op. Report at ¶ 904. I fail to see how this statement has anything to do with a  
22 Lifestyle player receiving an "indication" of a "zone scene."

23 1343. Third, Dr. Schonfeld's discussion of limitation 1.6 of Asserted Claim 1 of the '966  
24 Patent in connection with (i) the Bose Freespace E4 system (Schonfeld Op. Report at ¶ 902 (citing  
25 BOSE\_SUB-0000062 at 122 and BOSE\_SUB-0000140 at 144-145), (ii) setting up SA-2 and/or  
26 SA-3 Amplifiers in "additional rooms" using Bose link technology of a Bose "Lifestyle 18 series  
27 II, 28 series II, 38 or 48 home entertainment system" (*id.* at ¶ 903 (citing BOSE\_SUB-0000274-  
28 360 at 289, 290, 297 and BOSE\_SUB-0000361-448 at 385-386)), and (iii) the Bose link

1 communication protocol (*id.* at ¶ 904 (citing BOSE\_SUB-0000594-601 at 595-596)) does not  
2 include anything about a “computing device” “causing storage” of a “shared source group” or  
3 some other group of Lifestyle players, let alone “causing storage” of a “zone scene.”

4 1344. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that the  
5 Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be  
6 relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
7 in Dr. Schonfeld’s alleged Bose Lifestyle 50 System did not have the functional capability required  
8 by limitations 1.4 / 1.6 of Asserted Claim 1 of the ’966 Patent.

9 **vi. The Bose Lifestyle 50 System Did Not Meet Limitations 1.4 / 1.7**

10 1345. When read together, limitations 1.4 and 1.7 of Asserted Claim 1 of the ’966 Patent  
11 require the “computing device” to be encoded with executable “program instructions” that cause  
12 the computing device to perform the following function(s):

13 [1.4] while serving as a controller for a networked media playback system comprising a  
14 first zone player and at least two other zone players, wherein the first zone player is  
15 operating in a standalone mode in which the first zone player is configured to play back  
media individually:

16 ...

17 [1.7] receiving a second request to create a second zone scene comprising a  
18 second predefined grouping of zone players including at least the first zone player  
19 and a third zone player that are to be configured for synchronous playback of media  
when the second zone scene is invoked, wherein the third zone player is different  
than the second zone player;

20 1346. In my opinion, the Bose Lifestyle 50 System did not meet this requirement.

21 1347. As explained above, the evidence I have reviewed establishes that the Personal  
22 Music Center (and any other alleged “computing device” that Dr. Schonfeld may be relying on) in  
23 the Bose Lifestyle 50 System was only capable of receiving requests to form ad-hoc “shared source  
24 groups,” which are not the claimed “zone scenes” for the reasons explained above. Thus, for this  
25 reason, the Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld  
26 may be relying on such as the combination of the Personal Music Center and the Multi-Room  
27 Interface) in the Bose Lifestyle 50 System did not have the required functional capability to  
28

1 “receiv[e] a *second request to create a second zone scene* comprising a second predefined grouping  
2 of [Lifestyle players] including at least the first [Lifestyle player] and a third [Lifestyle player] that  
3 are to be configured for synchronous playback of media when the second zone scene is invoked.”

4 1348. Moreover, the hard-coded “HOUSE” option of the Bose Lifestyle 50 System that  
5 is relied upon by Dr. Schonfeld fails to meet these limitations for the additional reason that a Sonos  
6 controller would have never received any “request to create” the hard-coded “HOUSE” option.

7 1349. Further yet, claim limitations 1.4 and 1.7 require the “computing device” to  
8 “receiv[e] [the] second request to create [the] second zone scene” at a time when the “first zone  
9 player” is “operating in a standalone mode,” which means that the created “first zone scene” must  
10 be in an inactive state at the time that this functionality is carried out (otherwise, the “first zone  
11 player” could not be in “standalone mode”). However, in the Bose Lifestyle 50 System, it was not  
12 possible for an ad-hoc “shared source group” to exist in an inactive state in which the members of  
13 the “shared source group” could be used for individual playback while the “shared source group”  
14 remained available for selection by a user; rather, an ad-hoc “shared source group” only remained  
15 in existence for the temporary period of time during which it was activated, and once deactivated,  
16 the “shared source group” would cease to exist.

17 1350. Despite this clear evidence establishing that the Personal Music Center (and any  
18 other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination  
19 of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle 50 System did  
20 not have any “zone scenes” capability, Dr. Schonfeld nevertheless opines that claim limitations  
21 1.4 and 1.7 of Asserted Claim 1 of the ’966 Patent were either disclosed or rendered obvious by  
22 the Bose Lifestyle 50 System. *See* Schonfeld Op. Report at ¶¶ 1038, 1041. However, I find Dr.  
23 Schonfeld’s opinions regarding the Bose Lifestyle 50 System and claim limitations 1.4 and 1.7 of  
24 Asserted Claim 1 of the ’966 Patent to be flawed for several reasons.

25 1351. As an initial matter, the entirety of Dr. Schonfeld’s discussion regarding the Bose  
26 Lifestyle 50 System and claim limitations 1.4 and 1.7 of Asserted Claim 1 of the ’966 Patent is  
27 shown in the screenshots below from Dr. Schonfeld’s Opening Report:  
28



(v) *Limitation 1.4 "while serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players, wherein the first zone player is operating in a standalone mode in which the first zone player is configured to play back media individually:"*

1038. *See supra* '885 claim 1, "network device" disclosure in, e.g., 1.6, 1.7, 1.9, "network interface" disclosure in, e.g., 1.1., "zone player" disclosure in e.g., preamble, 1.1, 1.4-1.7, 1.9-1.10, "standalone mode" disclosure in e.g., 1.5, 1.8, 1.10.

(viii) *Limitation 1.7 receiving a second request to create a second zone scene comprising a second predefined grouping of zone players including at least the first zone player and a third zone player that are to be configured for synchronous playback of media when the second zone scene is invoked, wherein the third zone player is different than the second zone player;*

1041. *See supra* '885 claim 1, Limitation 1.6, 1.7.

1352. As these screenshots demonstrate, Dr. Schonfeld has not provided any analysis of how the Bose Lifestyle 50 System allegedly meets these limitations of Asserted Claim 1 of the '966. Instead, Dr. Schonfeld is relying exclusively on his prior discussion of the Bose Lifestyle 50 System in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a "zone player"), claim limitations 1.4 and 1.7 of Asserted Claim 1 of the '966 Patent use different claim language than the limitations of Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion of the Bose Lifestyle 50 System in the context of the claim limitations of Asserted Claim 1 of the '885 Patent applies to claim limitations 1.4 and 1.7 of Asserted Claim 1 of the '966 Patent. In fact, Dr. Schonfeld fails to even state whether his opinion is that claim limitations 1.4 and 1.7 of Asserted Claim 1 of the '966 Patent were actually *disclosed* by the Bose Lifestyle 50 System versus whether his opinion is that claim limitations 1.4 and 1.7 of Asserted Claim 1 of the '966 Patent were only *rendered obvious*



1 by the Bose Lifestyle 50 System. And along similar lines, Dr. Schonfeld never once articulates  
2 what he considers to be the claimed “second request to create a second zone scene” in the Bose  
3 Lifestyle 50 System. For these reasons, I disagree that Dr. Schonfeld’s barebones discussion of  
4 claim limitations 1.4 and 1.7 of Asserted Claim 1 of the ‘966 Patent amounts to a detailed and  
5 complete statement of all opinions to be expressed and the basis and reasons therefor, which I  
6 understand to be the governing standard for expert reports, and that barebones discussion has  
7 prejudiced my ability to fully discern, assess, and respond to his opinions regarding claim  
8 limitations 1.4 and 1.7 of Asserted Claim 1 of the ‘966 Patent.<sup>60</sup>

9 1353. With that said, as I have discussed above in Section XV.C.1.iii as well as in my  
10 ‘885 Rebuttal Report regarding Asserted Claim 1 of the ‘885 Patent, Dr. Schonfeld’s analysis of  
11 the Bose Lifestyle 50 System in the context of Asserted Claim 1 of the ‘885 Patent suffers from a  
12 number of flaws, many of which are applicable to claim limitations 1.4 and 1.7 of Asserted Claim  
13 1 of the ‘966 Patent as well – including that he relies on functionality that is not even part of the  
14 actual Bose Lifestyle 50 System, that he fails to identify what he is alleging to meet the various  
15 aspects of these claim limitations, and that his analysis is premised on both an incorrect  
16 interpretation of what is required to qualify as a “zone scene” and an inaccurate and misleading  
17 characterization of the Bose Lifestyle 50 System functionality and the evidence related thereto.

18 1354. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that the  
19 Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be  
20 relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
21 in the Bose Lifestyle 50 System did not have the functional capability required by limitations 1.4  
22 / 1.7 of Asserted Claim 1 of the ‘966 Patent.

23 **vii. The Bose Lifestyle 50 System Did Not Meet Limitations 1.4 / 1.8**

24 1355. When read together, limitations 1.4 and 1.8 of Asserted Claim 1 of the ‘966 Patent  
25 require the “computing device” to be encoded with executable “program instructions” that cause  
26 the computing device to perform the following function(s):

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27 <sup>60</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

1 [1.4] while serving as a controller for a networked media playback system comprising a  
2 first zone player and at least two other zone players, wherein the first zone player is  
3 operating in a standalone mode in which the first zone player is configured to play back  
4 media individually:

5 ...

6 [1.8] based on the second request, i) causing creation of the second zone scene,  
7 ii) causing an indication of the second zone scene to be transmitted to the first zone  
8 player, and iii) causing storage of the second zone scene;

9 1356. In my opinion, the Bose Lifestyle 50 System did not meet this requirement.

10 1357. As explained above, the evidence I have reviewed establishes that the Personal  
11 Music Center (and any other alleged “computing device” that Dr. Schonfeld may be relying on  
12 such as the combination of the Personal Music Center and the Multi-Room Interface) in the Bose  
13 Lifestyle 50 System was only capable of forming ad-hoc “shared source groups,” which are not  
14 the claimed “zone scenes” for the reasons explained above. Thus, for this reason, the Personal  
15 Music Center (and any other controller that Dr. Schonfeld may be relying on such as the  
16 combination of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle 50  
17 System did not have the required functional capability to “i) caus[e] creation of the second zone  
18 scene, ii) caus[e] an indication of the second zone scene to be transmitted to the first [Lifestyle  
19 player], and iii) caus[e] storage of the second zone scene.”

20 1358. Moreover, the hard-coded “HOUSE” option of the Bose Lifestyle 50 System that  
21 is relied upon by Dr. Schonfeld above fails to meet these limitations for the additional reason that  
22 the Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be  
23 relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
24 of the Bose Lifestyle 50 System would have never received any “request to create” the hard-coded  
25 “HOUSE” option and also would have never “caus[ed] creation of” the hard-coded “HOUSE”  
26 option, “caus[ed] an indication of” the hard-coded “HOUSE” option to be “transmitted to the first  
27 [Lifestyle player],” or “caus[ed] storage of” the hard-coded “HOUSE” option.

28 1359. Further, claim limitations 1.4 and 1.8 require the “computing device” to carry out  
the claimed actions with respect to a “second zone scene” at a time when the “first zone player” is

1 “operating in a standalone mode,” which means that the created “first zone scene” must be in an  
2 inactive state at the time that this functionality is carried out (otherwise, the “first zone player”  
3 could not be in “standalone mode”). However, in the Bose Lifestyle 50 System, it was not possible  
4 for an ad-hoc “shared source group” to exist in an inactive state in which the members of the  
5 “shared source group” could be used for individual playback while the “shared source group”  
6 remained available for selection by a user; rather, an ad-hoc “shared source group” only remained  
7 in existence for the temporary period of time during which it was activated, and once deactivated,  
8 the “shared source group” would cease to exist.

9 1360. Further yet, in the context of the surrounding claim language, a POSITA would  
10 understand that claim limitations 1.4 and 1.8 require the “computing device” to carry out the  
11 claimed actions with respect to a “second zone scene” that includes at least one common “zone  
12 player” with the “first zone scene” (i.e., the claimed “first zone player”) but without modifying or  
13 destroying the “first zone scene” that was created, such that the overlapping “first zone scene” and  
14 “second zone scene” can thereafter both be “display[ed]” to a user for selection. However, in the  
15 Bose Lifestyle 50 System, it was not possible to create a new ad-hoc “shared source group”  
16 comprising a Lifestyle player that was already a member of another preexisting “shared source  
17 group” without first modifying or destroying that preexisting “shared source group.” For this  
18 additional reason, the Personal Music Center (and any other alleged “computing device” that Dr.  
19 Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-  
20 Room Interface) of the Bose Lifestyle 50 System did not have the required functional capability  
21 to “i) caus[e] creation of the second zone scene, ii) caus[e] an indication of the first zone scene to  
22 be transmitted to the first [Lifestyle player], and iii) caus[e] storage of the second zone scene,”  
23 where the “second zone scene” includes at least one common “Lifestyle player” with the created  
24 “first zone scene.”

25 1361. Despite this clear evidence establishing that the Personal Music Center (and any  
26 other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination  
27 of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle 50 System did  
28 not have any “zone scenes” capability, Dr. Schonfeld nevertheless opines that claim limitations

1 1.4 and 1.8 of Asserted Claim 1 of the '966 Patent were either disclosed or rendered obvious by  
2 the Bose Lifestyle 50. *See* Schonfeld Op. Report at ¶¶ 1038, 1042. However, I find Dr.  
3 Schonfeld's opinions regarding the Bose Lifestyle 50 System and claim limitations 1.4 and 1.8 of  
4 Asserted Claim 1 of the '966 Patent to be flawed for several reasons.

5 1362. As an initial matter, the entirety of Dr. Schonfeld's discussion regarding the Bose  
6 Lifestyle 50 System and claim limitations 1.4 and 1.8 of Asserted Claim 1 of the '966 Patent is  
7 shown in the screenshots below from Dr. Schonfeld's Opening Report:

8  
9 (v) *Limitation 1.4 "while serving as a controller for a networked media*  
10 *playback system comprising a first zone player and at least two*  
11 *other zone players, wherein the first zone player is operating in a*  
12 *standalone mode in which the first zone player is configured to play*  
13 *back media individually."*

14 1038. *See supra* '885 claim 1, "network device" disclosure in, e.g., 1.6, 1.7, 1.9, "network  
15 interface" disclosure in, e.g., 1.1., "zone player" disclosure in e.g., preamble, 1.1, 1.4-1.7, 1.9-1.10,  
16 "standalone mode" disclosure in e.g., 1.5, 1.8, 1.10.

17 (ix) *Limitation 1.8 based on the second request, i) causing creation of*  
18 *the second zone scene, ii) causing an indication of the second zone*  
19 *scene to be transmitted to the first zone player, and iii) causing*  
20 *storage of the second zone scene;*

21 1042. *See supra* '885 claim 1, Limitation 1.6, 1.7.

22 1363. As these screenshots demonstrate, Dr. Schonfeld is relying exclusively on his prior  
23 discussion of the Bose Lifestyle 50 System in the context of certain claim limitations of the '885  
24 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device  
25 than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a  
26 controller" as opposed to a "zone player"), claim limitations 1.4 and 1.8 of Asserted Claim 1 of  
27 the '966 Patent use different claim language than the limitations of Asserted Claim 1 of the '885  
28 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion  
of the Bose Lifestyle 50 System in the context of the claim limitations of Asserted Claim 1 of the  
'885 Patent applies to claim limitations 1.4 and 1.8 of Asserted Claim 1 of the '966 Patent. In fact,

1 Dr. Schonfeld fails to even state whether his opinion is that claim limitations 1.4 and 1.8 of  
2 Asserted Claim 1 of the '966 Patent were actually *disclosed* by the Bose Lifestyle 50 System versus  
3 whether his opinion is that claim limitations 1.4 and 1.8 of Asserted Claim 1 of the '966 Patent  
4 were only *rendered obvious* by the Bose Lifestyle 50 System. And along similar lines, Dr.  
5 Schonfeld never articulates what he considers to be the claimed functions of “i) causing creation  
6 of the second zone scene, ii) causing an indication of the second zone scene to be transmitted to  
7 the first zone player, and iii) causing storage of the second zone scene” in the Bose Lifestyle 50  
8 System. For these reasons, I disagree that Dr. Schonfeld’s barebones discussion of claim  
9 limitations 1.4 and 1.8 of Asserted Claim 1 of the '966 Patent amounts to a detailed and complete  
10 statement of all opinions to be expressed and the basis and reasons therefor, which I understand to  
11 be the governing standard for expert reports, and that barebones discussion has prejudiced my  
12 ability to fully discern, assess, and respond to his opinions regarding claim limitations 1.4 and 1.8  
13 of Asserted Claim 1 of the '966 Patent.<sup>61</sup>

14 1364. With that said, as I have discussed above in Section XV.C.1.iii as well as in my  
15 '885 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld’s analysis of  
16 the Bose Lifestyle 50 System in the context of Asserted Claim 1 of the '885 Patent suffers from a  
17 number of flaws, many of which are applicable to claim limitations 1.4 and 1.8 of Asserted Claim  
18 1 of the '966 Patent as well – including that he relies on functionality that is not even part of the  
19 actual Bose Lifestyle 50 System, that he fails to identify what he is alleging to meet the various  
20 aspects of these claim limitations, and that his analysis is premised on both an incorrect  
21 interpretation of what is required to qualify as a “zone scene” and an inaccurate and misleading  
22 characterization of the Bose Lifestyle 50 System functionality and the evidence related thereto.

23 1365. For instance, Dr. Schonfeld’s opinion that the Bose Lifestyle 50 System meets  
24 limitation 1.7 of Asserted Claim 1 of the '885 Patent (upon which he relies for limitation 1.8 of  
25 Asserted Claim 1 of the '966 Patent) is based on functionality that is not related to or compatible  
26 with the actual Bose Lifestyle 50 System itself. *See* Schonfeld Op. Report at ¶¶ 905-907. Indeed,

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27 <sup>61</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

1 after incorporating his discussion of limitation 1.6 of Asserted Claim 1 of the '885 Patent (which  
2 also based on functionality that is not related to or compatible with the actual Bose Lifestyle 50  
3 System itself, as explained above), Dr. Schonfeld relies exclusively on functionality related to the  
4 Bose link communication protocol, which, as explained above, is not utilized by or compatible  
5 with the Bose Lifestyle 50 System. *Id.* at ¶ 907 (citing BOSE\_SUB-0000594-601 at 597). For  
6 these reasons alone, Dr. Schonfeld's theory is flawed and he has failed to prove that the actual  
7 Bose Lifestyle 50 System discloses the claimed "zone scene" functionality of claim limitations 1.4  
8 and 1.8 of Asserted Claim 1 of the '966 Patent.

9 1366. Further examples of why Dr. Schonfeld's analysis is flawed are set forth below,  
10 where I have separated reasons related to the actual Bose Lifestyle 50 System and Dr. Schonfeld's  
11 alleged Bose Lifestyle 50 System.

12 Actual Bose Lifestyle 50 System

13 1367. First, when discussing the actual Bose Lifestyle 50 System and claim limitations  
14 1.6 and 1.7 of Asserted Claim 1 of the '885 Patent, Dr. Schonfeld relies exclusively on the  
15 functionality in the Bose Lifestyle 50 System for forming ad-hoc "shared source groups," which  
16 are not the claimed "zone scenes" for all of the reasons I have previously explained in Section  
17 XV.C.1.iii.

18 1368. Second, when discussing the actual Bose Lifestyle 50 System and claim limitation  
19 1.7 of Asserted Claim 1 of the '885 Patent (via the incorporation of his discussion of limitation 1.6  
20 of Asserted Claim 1 of the '885 Patent), Dr. Schonfeld did not identify any "second indication that  
21 the first zone player has been added to a second zone scene." And for the same reasons that I  
22 already explained above in connection with the "indication" of the "first zone scene" of limitation  
23 1.6 of Asserted Claim 1 of the '966 Patent, the Bose Lifestyle 50 System does not disclose an  
24 "indication" of the "second zone scene," as required by limitation 1.8 of Asserted Claim 1 of the  
25 '966 Patent.

26 1369. Third, even setting aside the fundamental differences between a "shared source  
27 group" and a "zone scene," Dr. Schonfeld has not identified (and I have not seen) any evidence of  
28 the Personal Music Center or any other device in the Bose Lifestyle 50 System "causing storage"

1 of a “shared source group.”

2 1370. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that the  
3 Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be  
4 relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
5 in the Bose Lifestyle 50 System did not have the functional capability required by limitations 1.4  
6 / 1.8 of Asserted Claim 1 of the ’966 Patent.

7 Dr. Schonfeld’s alleged Bose Lifestyle 50 System

8 1371. First, I incorporate my discussion of limitation 1.6 of Asserted Claim 1 of the ’966  
9 Patent as it relates to Dr. Schonfeld’s alleged Bose Lifestyle 50 System, which explains that (1)  
10 the functionality Dr. Schonfeld relies on related to (i) the Bose Freespace E4 system, (ii) setting  
11 up SA-2 and/or SA-3 Amplifiers in “additional rooms” using Bose link technology of a Bose  
12 “Lifestyle 18 series II, 28 series II, 38 or 48 home entertainment system,” and (iii) the Bose link  
13 communication protocol does not disclose the claimed “zone scene” functionality; (2) the Bose  
14 Link communication protocol does not disclose the transmission of an “indication” of any sort of  
15 group of Lifestyle players, let alone an “indication” of a “zone scene”; and (3) the functionality  
16 that Dr. Schonfeld relies on related to (i) the Bose Freespace E4 system, (ii) setting up SA-2 and/or  
17 SA-3 Amplifiers in “additional rooms” using Bose link technology of a Bose “Lifestyle 18 series  
18 II, 28 series II, 38 or 48 home entertainment system,” and (iii) the Bose link communication  
19 protocol does not disclose a “computing device” “causing storage” of a “shared source group” or  
20 some other group of Lifestyle players, let alone “causing storage” of a “zone scene.”

21 1372. Second, although unclear, Dr. Schonfeld appears to assert that his alleged Bose  
22 Lifestyle 50 System discloses a “computing device” that is programmed with functional capability  
23 for causing the creation of two overlapping “zone scenes” that co-exist with one another and are  
24 both available for selection by a user at the same time based exclusively on the following theory:  
25 “[T]he Bose Lifestyle expressly teaches managing two separate streaming sources at one time,  
26 such that room A can operate on stream 1, and room B can operate stream 2, for example.”  
27 Schonfeld Op. Report at ¶ 907. However, this theory is flawed for all the reasons I explained  
28 above in Section XV.C.1.iii.



1373. Thus, nothing in Dr. Schonfeld's Opening Report alters my opinion that the Personal Music Center (and any other alleged "computing device" that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-Room Interface) in Dr. Schonfeld's alleged Bose Lifestyle 50 System did not have the functional capability required by limitations 1.4 / 1.8 of Asserted Claim 1 of the '966 Patent.

**viii. The Bose Lifestyle 50 System Did Not Meet Limitations 1.4 / 1.9**

1374. When read together, limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent require the "computing device" to be encoded with executable "program instructions" that cause the computing device to perform the following function(s):

[1.4] while serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players, wherein the first zone player is operating in a standalone mode in which the first zone player is configured to play back media individually:

...

[1.9] displaying a representation of the first zone scene and a representation of the second zone scene; and;

1375. In my opinion, the Bose Lifestyle 50 System did not meet this requirement.

1376. As explained above, the evidence I have reviewed establishes that the Bose Lifestyle 50 System only provided users with the ability to form and use ad-hoc "shared source groups," which are not the claimed "zone scenes" for the reasons explained above. Thus, for this reason, the Personal Music Center (and any other alleged "computing device" that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle 50 System did not have any functional capability for "displaying a representation" of a "zone scene" – let alone the required functional capability for "displaying a representation of the first zone scene and a representation of the second zone scene" in a manner that allows a user to select between them for purposes of requesting invocation.

1377. Further, as explained above, the "first zone scene" and the "second zone scene" for which the "representation[s]" are "display[ed]" are required to overlap with one another by including at least one common "zone player" (i.e., the claimed "first zone player"). However, in

1 the Bose Lifestyle 50 System, it was not possible for two ad-hoc “shared source groups” to overlap  
2 with one another; rather, each Lifestyle player could only be a member of a single “shared source  
3 group” at any given time. Thus, for this additional reason, a Sonos controller in the Bose Lifestyle  
4 50 System did not have the required functional capability to “display[] a representation of the first  
5 zone scene and a representation of the second zone scene.”

6 1378. Further yet, claim limitations 1.4 and 1.9 require the “computing device” to  
7 “display[] a representation of the first zone scene and a representation of the second zone scene”  
8 at a time when the “first zone player” is “operating in a standalone mode,” which means that the  
9 “first zone scene” and the “second zone scene” both must be in an inactive state at the time that  
10 the “representation[s]” are “display[ed]” (otherwise, the “first zone player” could not be in  
11 “standalone mode”). However, in the Bose Lifestyle 50 System, it was not possible for an ad-hoc  
12 “saved source group” to exist in an inactive state in which the members of the “shared source  
13 group” could be used for individual playback while the “shared source group” remained available  
14 for selection by a user; rather, an ad-hoc “shared source group” only remained in existence for the  
15 temporary period of time during which it was activated, and once deactivated, the “shared source  
16 group” would cease to exist. Moreover, while the Personal Music System was capable of  
17 displaying the hard-coded “HOUSE” option at a time when a Lifestyle player was operating in  
18 standalone mode, (i) the hard-coded “HOUSE” option was not a “zone scene” for the reasons  
19 explained above and (ii) the hard-coded “HOUSE” option alone cannot possibly meet the claimed  
20 requirement of displaying “representations” of multiple overlapping “zone scenes.”

21 1379. Despite this clear evidence establishing that the Personal Music Center (and any  
22 other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination  
23 of the Personal Music Center and the Multi-Room Interface) the Bose Lifestyle 50 System did not  
24 have any “zone scenes” capability, Dr. Schonfeld nevertheless opines that claim limitations 1.4  
25 and 1.9 of Asserted Claim 1 of the '966 Patent were either disclosed or rendered obvious by the  
26 Bose Lifestyle 50 System. *See* Schonfeld Op. Report at ¶¶ 1038, 1043. However, I find Dr.  
27 Schonfeld’s opinions regarding the Bose Lifestyle 50 System and claim limitations 1.4 and 1.8 of  
28 Asserted Claim 1 of the '966 Patent to be flawed for several reasons.

1380. As an initial matter, the entirety of Dr. Schonfeld's discussion regarding the Bose Lifestyle 50 System and claim limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent is

(v) *Limitation 1.4 "while serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players, wherein the first zone player is operating in a standalone mode in which the first zone player is configured to play back media individually:"*

1038. *See supra* '885 claim 1, "network device" disclosure in, e.g., 1.6, 1.7, 1.9, "network interface" disclosure in, e.g., 1.1., "zone player" disclosure in e.g., preamble, 1.1, 1.4-1.7, 1.9-1.10, "standalone mode" disclosure in e.g., 1.5, 1.8, 1.10.

(x) *Limitation 1.9 displaying a representation of the first zone scene and a representation of the second zone scene; and*

1043. *See supra* '885 claim 1, Limitations 1.6 and 1.7.

shown in the screenshots below from Dr. Schonfeld's Opening Report:

1381. As these screenshots demonstrate, Dr. Schonfeld is relying exclusively on his prior discussion of the Bose Lifestyle 50 System in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a "zone player"), claim limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent use different claim language than the limitations of Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion of the Bose Lifestyle 50 System in the context of the claim limitations of Asserted Claim 1 of the '885 Patent applies to claim limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent. In fact, Dr. Schonfeld fails to even state whether his opinion is that claim limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent were actually *disclosed* by the Bose Lifestyle 50 System versus whether his opinion is that claim limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent were only *rendered obvious* by the Bose Lifestyle 50 System. And along similar lines, Dr. Schonfeld never articulates what he considers to be the displayed "representation of the first zone scene" or the displayed "representation of the second zone scene" in the Bose Lifestyle 50 System.

1 For these reasons, I disagree that Dr. Schonfeld's barebones discussion of claim limitations 1.4  
2 and 1.9 of Asserted Claim 1 of the '966 Patent amounts to a detailed and complete statement of all  
3 opinions to be expressed and the basis and reasons therefor, which I understand to be the governing  
4 standard for expert reports, and that barebones discussion has prejudiced my ability to fully  
5 discern, assess, and respond to his opinions regarding claim limitations 1.4 and 1.9 of Asserted  
6 Claim 1 of the '966 Patent.<sup>62</sup>

7 1382. With that said, as I have discussed above in Section XV.C.1.iii as well as in my  
8 '885 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's analysis of  
9 the Bose Lifestyle 50 System in the context of Asserted Claim 1 of the '885 Patent suffers from a  
10 number of flaws, many of which are applicable to claim limitations 1.4 and 1.9 of Asserted Claim  
11 1 of the '966 Patent as well – including that he relies on functionality that is not even part of the  
12 actual Bose Lifestyle 50 System, that he fails to identify what he is alleging to meet the various  
13 aspects of these claim limitations, and that his analysis is premised on both an incorrect  
14 interpretation of what is required to qualify as a “zone scene” and an inaccurate and misleading  
15 characterization of the Bose Lifestyle 50 System functionality and the evidence related thereto.

16 1383. For instance, as explained above, Dr. Schonfeld's opinion that the Bose Lifestyle  
17 50 System meets limitations 1.6 and 1.7 of Asserted Claim 1 of the '885 Patent (upon which he  
18 relies for limitation 1.9 of Asserted Claim 1 of the '966 Patent) is based on functionality that is not  
19 related to or compatible with the actual Bose Lifestyle 50 System itself. *See* Schonfeld Op. Report  
20 at ¶¶ 899-907. For these reasons alone, Dr. Schonfeld's theory is flawed and he has failed to prove  
21 that the actual Bose Lifestyle 50 System discloses the claimed “zone scene” functionality of claim  
22 limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent.

23 1384. Further examples of why Dr. Schonfeld's analysis is flawed are set forth below,  
24 where I have separated reasons related to the actual Bose Lifestyle 50 System and Dr. Schonfeld's  
25 alleged Bose Lifestyle 50 System.

26 Actual Bose Lifestyle 50 System

27 \_\_\_\_\_  
28 <sup>62</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
in his Opening Report, I expressly reserve my right to respond.

1 1385. First, when discussing the actual Bose Lifestyle 50 System and claim limitations  
2 1.6 and 1.7 of Asserted Claim 1 of the '885 Patent, Dr. Schonfeld relies exclusively on the  
3 functionality in the Bose Lifestyle 50 System for forming ad-hoc “shared source groups,” which  
4 are not the claimed “zone scenes” for all of the reasons I have previously explained in Section  
5 XV.C.1.iii.

6 1386. Second, even setting aside the fundamental differences between a “shared source  
7 group” and a “zone scene,” Dr. Schonfeld has not identified (and I have not seen) any evidence of  
8 the Personal Music Center or any other device in the Bose Lifestyle 50 System displaying  
9 representations of two different “shared source groups” having a common member in a manner  
10 that allows a user to select between the two “shared source groups” for purposes of requesting  
11 invocation. Indeed, although unclear, to the extent Dr. Schonfeld is relying on a “shared source  
12 group” that is created using the “ROOM” button as one of the two overlapping “zone scenes,” I  
13 have not seen any evidence that the “indicators” for such a “shared source group” (e.g., **A B**)  
14 that are displayed by the Personal Music Center are selectable for any purpose, let alone for  
15 purposes of requesting invocation. *See* BOSE\_SUB-0000001 at 44.

16 1387. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that the  
17 Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be  
18 relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
19 in the Bose Lifestyle 50 System did not have the functional capability required by limitations 1.4  
20 / 1.9 of Asserted Claim 1 of the '966 Patent.

21 Dr. Schonfeld’s alleged Bose Lifestyle 50 System

22 1388. First, in his section discussing his alleged version of the Bose Lifestyle 50 System  
23 and claim limitation 1.6 of Asserted Claim 1 of the '885 Patent, Dr. Schonfeld relies on  
24 functionality related to (i) the Bose Freespace E4 system (Schonfeld Op. Report at ¶ 902 (citing  
25 BOSE\_SUB-0000062 at 122 and BOSE\_SUB-0000140 at 144-145), (ii) setting up SA-2 and/or  
26 SA-3 Amplifiers in “additional rooms” using Bose link technology of a Bose “Lifestyle 18 series  
27 II, 28 series II, 38 or 48 home entertainment system” (*id.* at ¶ 903 (citing BOSE\_SUB-0000274-  
28 360 at 289, 290, 297 and BOSE\_SUB-0000361-448 at 385-386)), and (iii) the Bose link

1 communication protocol (*id.* at ¶ 904 (citing BOSE\_SUB-0000594-601 at 595-596)). However,  
2 as I have already explained above in Section XV.C.1.iii, the functionality that he relies on for these  
3 various Bose products does not disclose the claimed “zone scene” functionality.

4 1389. Second, Dr. Schonfeld has not identified (and I have not seen) any evidence of a  
5 “computing device” in Dr. Schonfeld’s alleged Bose Lifestyle 50 System displaying  
6 representations of two different “shared source groups” having a common member in a manner  
7 that allows a user to select between the two “shared source groups” for purposes of requesting  
8 invocation.

9 1390. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that the  
10 Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be  
11 relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
12 in Dr. Schonfeld’s alleged Bose Lifestyle 50 System did not have the functional capability required  
13 by limitations 1.4 / 1.9 of Asserted Claim 1 of the ’966 Patent.

14 **ix. The Bose Lifestyle 50 System Did Not Meet Limitations 1.4 / 1.10**

15 1391. When read together, limitations 1.4 and 1.10 of Asserted Claim 1 of the ’966 Patent  
16 require the “computing device” to be encoded with executable “program instructions” that cause  
17 the computing device to perform the following function(s):

18 **[1.4]** while serving as a controller for a networked media playback system comprising a  
19 first zone player and at least two other zone players, wherein the first zone player is  
20 operating in a standalone mode in which the first zone player is configured to play back  
media individually:

21 ...

22 **[1.10]** while displaying the representation of the first zone scene and the  
23 representation of the second zone scene, receiving a third request to invoke the first  
zone scene; and

24 1392. In my opinion, the Bose Lifestyle 50 System did not meet this requirement.

25 1393. As explained above, the evidence I have reviewed establishes that the Bose  
26 Lifestyle 50 System only provided users with the ability to form and use ad-hoc “shared source  
27 groups,” which are not the claimed “zone scenes” for the reasons explained above. Thus, for this  
28

1 reason, the Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld  
2 may be relying on such as the combination of the Personal Music Center and the Multi-Room  
3 Interface) in the Bose Lifestyle 50 System did not have any functional capability for either  
4 “displaying a representation” of a “zone scene” or receiving a “request to invoke” a “zone scene”  
5 – let alone the required functional capability for “while displaying the representation of the first  
6 zone scene and the representation of the second zone scene, receiving a third request to invoke the  
7 first zone scene.”

8 1394. Further, as explained above, the “first zone scene” and the “second zone scene” for  
9 which the “representation[s]” are “display[ed]” are required to overlap with one another by  
10 including at least one common “zone player” (i.e., the claimed “first zone player”). However, in  
11 the Bose Lifestyle 50 System, it was not possible for two ad-hoc “shared source groups” to overlap  
12 with one another; rather, each Lifestyle player could only be a member of a single “shared source  
13 group” at any given time. Thus, for this additional reason, the Personal Music Center (and any  
14 other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination  
15 of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle 50 System did  
16 not have the required functional capability to “while displaying the representation of the first zone  
17 scene and the representation of the second zone scene, receiving a third request to invoke the first  
18 zone scene.”

19 1395. Further yet, claim limitations 1.4 and 1.10 require the “computing device” to be  
20 “displaying the representation of the first zone scene and the representation of the second zone  
21 scene” and to “receiv[e] a third request to invoke the first zone scene” at a time when the “first  
22 zone player” is “operating in a standalone mode,” which means that the “first zone scene” and the  
23 “second zone scene” both must be in an inactive state at the time that this functionality is carried  
24 out (otherwise, the “first zone player” could not be in “standalone mode”). However, in the Bose  
25 Lifestyle 50 System, it was not possible for an ad-hoc “shared source group” to exist in an inactive  
26 state in which the members of the “shared source group” could be used for individual playback  
27 while the “shared source group” remained available for selection by a user; rather, an ad-hoc  
28 “shared source group” only remained in existence for the temporary period of time during which



1 it was activated, and once deactivated, the “shared source group” would cease to exist. Moreover,  
2 while the Personal Music Center was capable of displaying the hard-coded “HOUSE” option at a  
3 time when a Lifestyle player was operating in standalone mode, (i) the hard-coded “HOUSE”  
4 option was not a “zone scene” for the reasons explained above and (ii) the hard-coded “HOUSE”  
5 option alone cannot possibly meet the claimed requirement of displaying “representations” of  
6 multiple overlapping “zone scenes.”

7 1396. Still further, in the context of the surrounding claim language, a POSITA would  
8 understand that claim limitations 1.4 and 1.10 require the “computing device” to receive the  
9 “request to invoke the first zone scene” at some point in time that is later than when it received the  
10 “request to create [the] first zone scene” and the “first zone scene” was created based on that  
11 “request.” Indeed, at a minimum, there must be a time gap between the time when the “computing  
12 device” received the “request to create [the] first zone scene” and the time when the “computing  
13 device” received the “request to invoke the first zone scene” that is long enough to allow (i) the  
14 “first zone scene” to be created, (ii) the “computing device” to display “representation[s]” of the  
15 “first zone scene” as well as the “second zone scene,” and (iii) a user to view the displayed  
16 “representation[s]” of the “first zone scene” and “second zone scene” and then input the “request  
17 to invoke the first zone scene.” However, in the Bose Lifestyle 50 System, the Personal Music  
18 Center (and any other alleged “computing device” that Dr. Schonfeld may be relying on such as  
19 the combination of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle  
20 50 System would have only received a single request that served to both create and invoke a  
21 “shared source group” – it would have never received an initial “request to create” a “shared source  
22 group” followed by some later, separate “request to invoke” the “shared source group.” This is  
23 because an ad-hoc “shared source group” was automatically invoked at the time of its creation and  
24 then only remained in existence for the temporary period of time during which it was in an active  
25 state, after which time the “shared source group” would cease to exist. Thus, in the Bose Lifestyle  
26 50 System, there would have never been a period of time during which a “shared source group”  
27 was created and in existence but was in an inactive, uninvoked state such that a user was presented  
28 with an option to “request to invoke” the “shared source group.”

1397. Despite this clear evidence establishing that the Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-Room Interface) the Bose Lifestyle 50 System did not have any “zone scenes” capability, Dr. Schonfeld nevertheless opines that claim limitations 1.4 and 1.10 of Asserted Claim 1 of the ’966 Patent were either disclosed or rendered obvious by the Bose Lifestyle 50 System. *See* Schonfeld Op. Report at ¶¶ 1038, 1044. However, I find Dr. Schonfeld’s opinions regarding the Bose Lifestyle 50 System and claim limitations 1.4 and 1.10 of Asserted Claim 1 of the ’966 Patent to be flawed for several reasons.

1398. As an initial matter, the entirety of Dr. Schonfeld’s discussion regarding the Bose Lifestyle 50 System and claim limitations 1.4 and 1.10 of Asserted Claim 1 of the ’966 Patent is shown in the screenshots below from Dr. Schonfeld’s Opening Report:

(v) *Limitation 1.4 “while serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players, wherein the first zone player is operating in a standalone mode in which the first zone player is configured to play back media individually:”*

1038. *See supra* ‘885 claim 1, “network device” disclosure in, e.g., 1.6, 1.7, 1.9, “network interface” disclosure in, e.g., 1.1., “zone player” disclosure in e.g., preamble, 1.1, 1.4-1.7, 1.9-1.10, “standalone mode” disclosure in e.g., 1.5, 1.8, 1.10.

(xi) *Limitation 1.10 while displaying the representation of the first zone scene and the representation of the second zone scene, receiving a third request to invoke the first zone scene; and*

1044. *See supra* ‘885 claim 1, Limitation 1.9.

1399. As these screenshots demonstrate, Dr. Schonfeld is relying exclusively on his prior discussion of the Bose Lifestyle 50 System in the context of certain claim limitations of the ’885 Patent. However, the Asserted Claims of the ’966 Patent are directed to a different type of device than Asserted Claim 1 of the ’885 Patent (a “computing device” configured to “serv[e] as a controller” as opposed to a “zone player”), claim limitations 1.4 and 1.10 of Asserted Claim 1 of

1 the '966 Patent use different claim language than the limitations of Asserted Claim 1 of the '885  
2 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion  
3 of the Bose Lifestyle 50 System in the context of the claim limitations of Asserted Claim 1 of the  
4 '885 Patent applies to claim limitations 1.4 and 1.10 of Asserted Claim 1 of the '966 Patent. In  
5 fact, Dr. Schonfeld fails to even state whether his opinion is that claim limitations 1.4 and 1.10 of  
6 Asserted Claim 1 of the '966 Patent were actually *disclosed* by the Bose Lifestyle 50 System versus  
7 whether his opinion is that claim limitations 1.4 and 1.10 of Asserted Claim 1 of the '966 Patent  
8 were only *rendered obvious* by the Bose Lifestyle 50 System. And along similar lines, Dr.  
9 Schonfeld never articulates what he considers to be the displayed “representation of the first zone  
10 scene,” the displayed “representation of the second zone scene,” or the “third request to invoke the  
11 first zone scene” in the Bose Lifestyle 50 System. For these reasons, I disagree that Dr.  
12 Schonfeld’s barebones discussion of claim limitations 1.4 and 1.10 of Asserted Claim 1 of the '966  
13 Patent amounts to a detailed and complete statement of all opinions to be expressed and the basis  
14 and reasons therefor, which I understand to be the governing standard for expert reports, and that  
15 barebones discussion has prejudiced my ability to fully discern, assess, and respond to his opinions  
16 regarding claim limitations 1.4 and 1.10 of Asserted Claim 1 of the '966 Patent.<sup>63</sup>

17 1400. With that said, as I have discussed above in Section XV.C.1.iii as well as in my  
18 '885 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld’s analysis of  
19 the Bose Lifestyle 50 System in the context of Asserted Claim 1 of the '885 Patent suffers from a  
20 number of flaws, many of which are applicable to claim limitations 1.4 and 1.10 of Asserted Claim  
21 1 of the '966 Patent as well – including that he relies on functionality that is not even part of the  
22 actual Bose Lifestyle 50 System, that he fails to identify what he is alleging to meet the various  
23 aspects of these claim limitations, and that his analysis is premised on both an incorrect  
24 interpretation of what is required to qualify as a “zone scene” and an inaccurate and misleading  
25 characterization of the Bose Lifestyle 50 System functionality and the evidence related thereto.

26 1401. For instance, Dr. Schonfeld’s opinion that the Bose Lifestyle 50 System meets

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27 <sup>63</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

1 limitation 1.9 of Asserted Claim 1 of the '885 Patent (upon which he relies for limitation 1.10 of  
2 Asserted Claim 1 of the '966 Patent) is based in part on functionality that is not related to or  
3 compatible with the actual Bose Lifestyle 50 System itself. *See* Schonfeld Op. Report at ¶¶ 954-  
4 959. Indeed, Dr. Schonfeld relies on functionality related to the Bose link communication  
5 protocol, which, as explained above, is not utilized by or compatible with the Bose Lifestyle 50  
6 System. *Id.* at ¶ 956 (citing BOSE\_SUB-0000594-601 at 595-597). For these reasons alone, Dr.  
7 Schonfeld's theory is flawed and he has failed to prove that the actual Bose Lifestyle 50 System  
8 discloses the claimed "zone scene" functionality of claim limitations 1.4 and 1.10 of Asserted  
9 Claim 1 of the '966 Patent.

10 1402. Further examples of why Dr. Schonfeld's analysis is flawed are set forth below,  
11 where I have separated reasons related to the actual Bose Lifestyle 50 System and Dr. Schonfeld's  
12 alleged Bose Lifestyle 50 System.

13 Actual Bose Lifestyle 50 System

14 1403. When discussing the actual Bose Lifestyle 50 System and claim limitation 1.9 of  
15 Asserted Claim 1 of the '885 Patent, Dr. Schonfeld cites disclosure about the Personal Music  
16 Center of the Bose Lifestyle 50 System and states that "a user may select a synchronization group  
17 for playback using the Room button [of the Personal Music Center], and use the playback controls  
18 to cause Bose LifeStyle to operate as a synchronous playback group." *See* Schonfeld Op. Report  
19 at ¶ 955 (citing BOSE\_SUB-0000001-55 at 43). Although, unclear, Dr. Schonfeld appears to be  
20 suggesting that the Personal Music Center discloses the "network device" of limitation 1.9 and  
21 that, in response to a selection made using the "Room button" or in response to a user "us[ing]  
22 playback controls," the Personal Music Center and/or the Multi-Room Interface transmits the  
23 claimed "instruction to operate in accordance with a given one of the first and second zone scenes"  
24 to a Lifestyle player in "a synchronization group" to cause the Lifestyle player to operate in  
25 accordance with the "synchronization group." However, for similar reasons to those I explained  
26 in my '885 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, this theory is flawed  
27 for several reasons.

28 1404. First, this discussion of the Bose Lifestyle 50 System relies exclusively on the

1 functionality in the Bose Lifestyle 50 System for forming ad-hoc “shared source groups,” which  
2 are not the claimed “zone scenes” for all of the reasons I have previously explained in Section  
3 XV.C.1.iii. Thus, this alleged functionality cannot meet the claimed requirement of receiving a  
4 “request to invoke” a “zone scene.”

5 1405. Second, even setting aside the other fundamental differences between a “shared  
6 source group” and a “zone scene,” neither the user action of allegedly selecting a previously-  
7 created “shared source group” via the Personal Music Center nor the user action of using the  
8 “playback controls” for the selected “shared source group” amounts to a “request to invoke” the  
9 “shared source group.” This is because a “shared source group” was automatically invoked at the  
10 time of its creation and then only remained in existence for the temporary period of time during  
11 which it was in an active state, so there would have never been a period of time during which a  
12 “shared source group” was created and in existence but was in an inactive, uninvoked state such  
13 that a user was presented with an option to “request to invoke” the “shared source group.” Thus,  
14 at the time that a “shared source group” was allegedly selected via the Personal Music Center, such  
15 a “shared source group” would have already been “invoked” and thus such a selection was not a  
16 “request to invoke” the “shared source group.” Rather, the user would have been selecting an  
17 already-invoked “shared source group” for purposes of controlling that already-invoked “shared  
18 source group,” not “request[ing] to invoke” the “shared source group.” And for similar reasons,  
19 any subsequent user action in the user interface with respect to the “shared source group,” such as  
20 an interaction with the “playback controls,” also would not amount to a “request to invoke” the  
21 “shared source group.”

22 1406. Dr. Schonfeld’s position to the contrary appears to be based on an interpretation of  
23 the term “invoke” that ties the act of “invok[ing]” a “zone scene” comprising a user-customized,  
24 pre-saved group of “zone players” to the time when the group of “zone players” is actually caused  
25 to play back audio, but in my opinion, this is not how a POSITA would understand the term  
26 “invoke” in the context of the claim language and specification of the ’966 Patent. Rather, a  
27 POSITA would understand that the act of “invok[ing]” a “zone scene” comprising a user-  
28 customized, pre-saved group of “zone players” refers to the point in time when the pre-saved group

1 of “zone players” is activated for synchronous playback such that the “zone players” enter a mode  
2 in which they are controlled and used as part of the group, which is distinct from the act of initiating  
3 playback on that group of “zone players” (although in some scenarios it is possible that playback  
4 could be automatically initiated as a result of the “zone scene” being invoked). *See, e.g.*, ’407  
5 Provisional at App’x A, p. 4 (explaining that when a “Zone Scene” is invoked at a time when “no  
6 music is playing in any Zone – then the zones will simply link in a group” without playing any  
7 music); 6/6/2022 Lambourne Dep. Tr. at 59:5-16 (inventor of the ’885 and ’966 Patents testifying  
8 that a “zone scene” does not have to start actively playing audio “at that moment when the group  
9 is invoked”); D.I. 309 (the Court describing “standalone mode” as a mode in which a “zone player”  
10 “operate[s] individually” as contrasted with a mode in which the “zone player” is “being controlled  
11 as part of [a] group” and never mentioning active playback as a required aspect of “standalone  
12 mode”). And as explained previously, the “shared source groups” in the Bose Lifestyle 50 System  
13 were automatically invoked at the time of their creation and then only remained in existence for  
14 the temporary period of time during which they were in an active state, so there would have never  
15 been a period of time during which a “shared source group” was created and in existence but was  
16 in an inactive, uninvoked state such that a user was presented with an option to “request to invoke”  
17 the “shared source group” as required by Asserted Claim 1 of the ’966 Patent.

18 1407. Third, even setting aside the other fundamental differences between a “shared  
19 source group” of audio and a “zone scene,” I have not seen any evidence that the Personal Music  
20 Center and/or Multi-Room Interface of the actual Bose Lifestyle 50 System transmits any sort of  
21 information in response to a user selecting one or more rooms using the ROOM or HOUSE button  
22 of the Personal Music Center. Dr. Schonfeld’s only rebuttal is to point to the Bose link  
23 communication protocol, which is not utilized by or compatible with the actual Bose Lifestyle 50  
24 System, as explained above. *See* Schonfeld Op. Report at ¶ 955 (“Dr. Almeroth contends that  
25 ‘seen no evidence that the Personal Music Center transmits any sort of information in response to  
26 a user select ing one or more rooms using the Room or House button of the Personal Music  
27 Center.” I disagree. As shown above, the Bose link is essentially a conversation between the media  
28 center and the playback speakers such that the media center sends commands along with audio to

1 the playback speak, which then ‘responds’ with information.”). This confirms my position that  
2 there is no evidence that the Personal Music Center and/or Multi-Room Interface of the actual  
3 Bose Lifestyle 50 System transmits any sort of information in response to a user selecting one or  
4 more rooms using the ROOM or HOUSE button of the Personal Music Center. I address Dr.  
5 Schonfeld’s reliance on the Bose link communication protocol below.

6 1408. Fourth, even setting aside the other fundamental differences between a “shared  
7 source group” of audio and a “zone scene,” and assuming that the Personal Music Center does  
8 transmit an instruction in response to a user “us[ing] the playback controls, such as an instruction  
9 to play audio, I have not seen any evidence that such an instruction is transmitted from the Personal  
10 Music Center to a Lifestyle player. Instead, based on the materials I have reviewed, the Personal  
11 Music Center can only transmit information to the Multi-Room Interface of the Bose Lifestyle 50  
12 System. *See, e.g.*, BOSE\_SUB-0000001-55 at 19 (“When batteries are first installed in the music  
13 center; it sets up a radio-frequency link with the closest Multi-Room Interface. ... Hold the music  
14 center close to the Multi-Room Interface. Press and hold MUTE for about 5 seconds until you hear  
15 a beep and then release. After about 10 seconds, the music center should beep twice to confirm  
16 that the link is established.”), 45 (“To add a new music center to your system, follow the setup  
17 instructions on page 17. Be sure to install the batteries and turn it on for the first time close to the  
18 multi-room interface to allow the new music center to set up a radio frequency link with your  
19 system. If the multi-room interface is not plugged in or the music center is out of range, the display  
20 indicates NO RESPONSE.”); BOSE\_SUB-0000684-687 at 685 (describing the “Multi-room  
21 interface” as a “[s]mall, hideaway connection box transmits data to, and receives data from, the  
22 Personal music center via a radio data link.”). Thus, to the extent the Personal Music Center  
23 transmits an instruction to play audio on one or more selected rooms each having a Lifestyle player,  
24 it is my understanding that the instruction would be transmitted to the Multi-Room Interface, which  
25 would then configure itself to start to distribute audio to the one or more selected rooms via the  
26 Room A-D audio output connectors. *Id.*; *see also id.* at BOSE\_SUB-0000001-55 at 6 (“The Bose  
27 multi-room interface, with four independent audio outputs that allow you to enjoy Bose sound  
28 throughout your home.”), 12 (illustrating a Bose Lifestyle 50 System configuration with a CD



1 player and an Acoustimass module connected the multi-room interface). Further, I have seen no  
2 evidence the Multi-Room Interface can relay or transmit such an instruction to play music to  
3 Lifestyle player.

4 1409. Further yet, even if an instruction was sent from the Multi-Room Interface to a  
5 Lifestyle player (which I have seen no evidence of), such an instruction would not be received  
6 over a data network. As explained above, a POSITA would not consider the Multi-Room Interface  
7 and the Lifestyle players to be operating on a data network because the hard-wired connection  
8 therebetween is not a medium that interconnects devices, enabling them to send digital data packets  
9 to and receive digital data packets from each other.

10 1410. Thus, nothing in Dr. Schonfeld's Opening Report alters my opinion that the  
11 Personal Music Center (and any other alleged "computing device" that Dr. Schonfeld may be  
12 relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
13 in the Bose Lifestyle 50 System did not have the functional capability required by limitations 1.4  
14 / 1.10 of Asserted Claim 1 of the '966 Patent.

15 Dr. Schonfeld's alleged Bose Lifestyle 50 System

16 1411. When discussing his alleged Bose Lifestyle 50 System and claim limitation 1.9 of  
17 Asserted Claim 1 of the '885 Patent, Dr. Schonfeld cites disclosure about the Bose link  
18 communication protocol and states the following: "Bose Link is used as protocol to communicate  
19 between and amongst the various zones in order to invoke, for example, the play command that  
20 simultaneously plays audio in multiple zones. More specifically, Bose Link in conjunction with  
21 the media center operates over a network and allows for a user's pre-defined zones to also play  
22 different audio in simultaneously." *See* Schonfeld Op. Report at ¶ 956 (citing BOSE\_SUB-  
23 0000594-601 at 595-597). Although, unclear, Dr. Schonfeld appears to be suggesting that a "play  
24 command" sent using the Bose link communication protocol meets the claimed "instruction to  
25 operate in accordance with a given one of the first and second zone scenes." However, for similar  
26 reasons to those I explained in my '885 Rebuttal Report regarding Asserted Claim 1 of the '885  
27 Patent, this theory is flawed for several reasons.

28 1412. First, in his section discussing his alleged version of the Bose Lifestyle 50 System

1 and claim limitation 1.9 of Asserted Claim 1 of the '885 Patent, Dr. Schonfeld relies on  
2 functionality related to the Bose link communication protocol. *See* Schonfeld Op. Report at ¶ 956  
3 (citing BOSE\_SUB-0000594-601 at 595-597). However, as I have already explained above in  
4 Section XV.C.1.iii, the functionality that he relies on for the Bose link communication protocol  
5 does not disclose the claimed “zone scene” functionality.

6 1413. Second, to the extent I understand what Dr. Schonfeld is saying, Dr. Schonfeld's  
7 position that a “play command” meets the claimed “instruction to operate in accordance with a  
8 given one of the first and second zone scenes” of limitation 1.9 of Asserted Claim 1 of the '885  
9 Patent appears to be based on an interpretation of the term “invoke” that ties the act of “invok[ing]”  
10 a “zone scene” comprising a user-customized, pre-saved group of “zone players” to the time when  
11 the group of “zone players” is actually caused to play back audio, but in my opinion, this is not  
12 how a POSITA would understand the term “invoke” in the context of the claim language and  
13 specification of the '966 Patent. Rather, a POSITA would understand that the act of “invok[ing]”  
14 a “zone scene” comprising a user-customized, pre-saved group of “zone players” refers to the point  
15 in time when the pre-saved group of “zone players” is activated for synchronous playback such  
16 that the “zone players” enter a mode in which they are controlled and used as part of the group,  
17 which is distinct from the act of initiating playback on that group of “zone players” (although in  
18 some scenarios it is possible that playback could be automatically initiated as a result of the “zone  
19 scene” being invoked). *See, e.g.*, '407 Provisional at App'x A, p. 4 (explaining that when a “Zone  
20 Scene” is invoked at a time when “no music is playing in any Zone – then the zones will simply  
21 link in a group” without playing any music); 6/6/2022 Lambourne Dep. Tr. at 59:5-16 (inventor  
22 of the '885 and '966 Patents testifying that a “zone scene” does not have to start actively playing  
23 audio “at that moment when the group is invoked”); D.I. 309 (the Court describing “standalone  
24 mode” as a mode in which a “zone player” “operate[s] individually” as contrasted with a mode in  
25 which the “zone player” is “being controlled as part of [a] group” and never mentioning active  
26 playback as a required aspect of “standalone mode”). And as explained previously, the “shared  
27 source groups” in the Bose Lifestyle 50 System were automatically invoked at the time of their  
28 creation and then only remained in existence for the temporary period of time during which they

1 were in an active state, so there would have never been a period of time during which a “shared  
2 source group” was created and in existence but was in an inactive, uninvoked state such that a user  
3 was presented with an option to “request to invoke” the “shared source group” as required by  
4 Asserted Claim 1 of the ’966 Patent.

5 1414. Third, contrary to Dr. Schonfeld’s assertion, I have not seen any evidence of a “play  
6 command that simultaneously plays audio in multiple zones” in the “Understanding Bose link”  
7 document cited by Dr. Schonfeld. *See* BOSE\_SUB-0000594-601. Instead, according to the  
8 “Understanding Bose link” document cited by Dr. Schonfeld, the only information transmitted  
9 from a Bose link enabled media center to a Bose link expansion product (e.g., an SA-2 or SA-3  
10 Amplifier) is “on/off, volume and source commands along with audio.” *See* BOSE\_SUB-  
11 0000594-601 at 595. In my opinion, none of this information amounts to “an instruction to operate  
12 in accordance with” a group of Lifestyle players, and Dr. Schonfeld does not assert otherwise.

13 1415. Moreover, as explained above, in a Bose link system, each SA-2 or SA-3 amplifier  
14 is a Bose link expansion product in each room needs its own dedicated Bose link expansion  
15 controller, such as the RC-18S Remote Control, RC-38S Remote Control, and Personal Music  
16 Center II, and such controllers can only be set up to control a single room at a time by setting the  
17 “room code” of the remote control to match the “room code” of the SA-2 or SA-3 Amplifier. *See*  
18 BOSE\_SUB-0000361-448 at 384-386; *see also* BOSE\_SUB-0000594-601 at 595 (“Both the  
19 expansion product and the remote must be configured to operate on the same room.”). Thus,  
20 contrary to Dr. Schonfeld’s assertion, there is no way to send a “play command that simultaneously  
21 plays audio in multiple zones” using the Bose link communication protocol.

22 1416. Further, as I explained in my ’885 Rebuttal Report, a POSITA would understand  
23 that the “instruction to operate in accordance with” the selected “zone scene” requires an  
24 instruction that causes the selected “zone scene” to become “invoked” such that the group of “zone  
25 players” becomes activated. However, any alleged “play command” would be sent after a group  
26 of Bose link expansion products was set to the same audio stream and was already activated for  
27 synchronous playback, as explained above.

28 1417. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that the

Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-Room Interface) in Dr. Schonfeld’s alleged Bose Lifestyle 50 System did not have the functional capability required by limitations 1.4 / 1.10 of Asserted Claim 1 of the ’966 Patent.<sup>64</sup>

**x. The Bose Lifestyle 50 System Did Not Meet Limitation 1.11**

1418. Limitation 1.11 of Asserted Claim 1 of the ’966 Patent requires the “computing device” to be encoded with executable “program instructions” that cause the computing device to perform the following function(s):

[1.11] based on the third request, causing the first zone player to transition from operating in the standalone mode to operating in accordance with the first predefined grouping of zone players such that the first zone player is configured to coordinate with at least the second zone player to output media in synchrony with output of media by at least the second zone player.

1419. In my opinion, the Bose Lifestyle 50 System did not meet this requirement.

1420. As explained above, the evidence I have reviewed establishes that the Bose Lifestyle 50 System only provided users with the ability to form and use ad-hoc “shared source groups,” which are not the claimed “zone scenes” for the reasons explained above. Thus, for this reason, the Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-Room

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<sup>64</sup> Finally, although unclear, in his section discussing the Bose Lifestyle 50 System and limitation 1.8 of Asserted Claim 1 of the ’885 Patent (which Dr. Schonfeld does not rely on for limitation 1.10 of Asserted Claim 1 of the ’966 Patent), Dr. Schonfeld appears to be suggesting that multiple Bose link enabled Lifestyle players (e.g., SA-2 or SA-3 amplifiers) in a Bose link configuration have the functional capability of limitation 1.8 because they can be “offline” after they are connected to a Bose link enabled media center and then brought “online” when a user invokes the multiple Bose link enabled Lifestyle players using a remote control. *See* Schonfeld Op. Report at ¶¶ 928-932. To the extent Dr. Schonfeld is relying on this “offline” / “online” argument in the same manner that he relied on his “powered-off” theory for Squeezebox, it fails for the same reasons as I explained above in connection with Squeezebox. Moreover, I have reviewed the materials cited by Dr. Schonfeld and I fail to see any discussion of Lifestyle layers being “offline” and then being brought “online.” As such, it is not clear what functionality of the Bose Lifestyle 50 System that Dr. Schonfeld is even referring to. Regardless, in my opinion, a POSITA would not consider a speaker that is “offline” to be “operating in a standalone mode in which the first zone player is configured to play back media individually.” Additionally, in my opinion, a POSITA would consider the user action of bringing a speaker “online” to be distinctly different from the claimed requirement of a “request to invoke” the “shared source group.”

Interface) in the Bose Lifestyle 50 System did not have any functional capability for invoking a “zone scene” – let alone the required functional capability for “based on the third request [to invoke the first zone scene], causing the first zone player to transition from operating in the standalone mode to operating in accordance with the first predefined grouping of zone players such that the first zone player is configured to coordinate with at least the second zone player to output media in synchrony with output of media by at least the second zone player.”

1421. Further, in the context of the surrounding claim language, a POSITA would understand that the “computing device” is required to carry out the functionality of limitation 1.11 at a time when (i) the “first zone scene” and “second zone scene” have been created and are both in existence and (ii) the “first zone player” is “operating in a standalone mode,” which means that the “first zone scene” and the “second zone scene” both must be in an inactive state at the time that this functionality is carried out (otherwise, the “first zone player” could not be in “standalone mode”). However, in the Bose Lifestyle 50 System, it was not possible for an ad-hoc “shared source group” to exist in an inactive state in which the members of the “shared source group” could be used for individual playback while the “shared source group” remained available for selection by a user; rather, an ad-hoc “shared source group” only remained in existence for the temporary period of time during which it was activated, and once deactivated, the “shared source group” would cease to exist.

1422. Further yet, in the context of the surrounding claim language, a POSITA would understand that the “computing device” is required to carry out the functionality of limitation 1.11 at some point in time that is later than when it received the “request to create [the] first zone scene” and the “first zone scene” was created based on that “request.” Indeed, at a minimum, there must be a time gap between the time when the “computing device” received the “request to create [the] first zone scene” and the time when the “computing device” carries out the functionality of limitation 1.11 that is long enough to allow (i) the “first zone scene” to be created, (ii) the “computing device” to display “representation[s]” of the “first zone scene” as well as the “second zone scene,” and (iii) a user to view the displayed “representation[s]” of the “first zone scene” and “second zone scene” and then input the “request to invoke the first zone scene.” However, in the

1 Bose Lifestyle 50 System, the Personal Music Center (and any other alleged “computing device”  
2 that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and  
3 the Multi-Room Interface) would have only received a single request that served to both create  
4 and invoke a “shared source group,” and this single request is what would have triggered the Multi-  
5 Room Interface of the Bose Lifestyle 50 System to configure itself to distribute audio from the  
6 selected audio source to the selected Lifestyle player in the “shared source group” in order to cause  
7 those Lifestyle players to play back the same music simultaneously – the Personal Music Center  
8 (and any other alleged “computing device” that Dr. Schonfeld may be relying on such as the  
9 combination of the Personal Music Center and the Multi-Room Interface) would have never  
10 received an initial “request to create” a “shared source group” followed by some later, separate  
11 “request to invoke” the “shared source group.” This is because an ad-hoc “shared source group”  
12 was automatically invoked at the time of its creation and then only remained in existence for the  
13 temporary period of time during which it was in an active state, after which time the “shared source  
14 group” would cease to exist. Thus, in the Bose Lifestyle 50 System, there would have never been  
15 a period of time during which a “shared source group” was created and in existence but was in an  
16 inactive, uninvoked state such that a user was presented with an option to “request to invoke” the  
17 “shared source group” that would subsequently trigger the Personal Music Center (and any other  
18 alleged “computing device” that Dr. Schonfeld may be relying on such as the combination of the  
19 Personal Music Center and the Multi-Room Interface) to cause the Lifestyle players in a “shared  
20 source group” to become configured to play the same music simultaneously.

21 1423. Still further, the evidence I have reviewed establishes that a Lifestyle player did not  
22 have the capability to “transition[] from operating in [a] standalone mode to operating in  
23 accordance with” a “shared source group” such that the Lifestyle player would have been  
24 “configured to coordinate with at least [one other Lifestyle player] to output media in synchrony  
25 with output of media by at least [the one other Lifestyle player].” In fact, the evidence I have  
26 reviewed establishes a Lifestyle player did not have the capability to “coordinate” with another  
27 Lifestyle player for any purpose – let alone for purposes of outputting audio in synchrony -- nor  
28 did a Lifestyle player have the capability to change its “configur[ation]” as it related to audio

1 playback. To the contrary, the evidence I have reviewed shows that the Multi-Room Interface of  
2 the Bose Lifestyle 50 System was exclusively responsible for the “shared source group”  
3 functionality, and the Lifestyle players never changed into a different “mode” for group playback  
4 or even had any awareness of whether or not they were part of a “shared source group.” *See, e.g.*,  
5 BOSE\_SUB-0000001-55 at 6 (“The Bose Multi-Room Interface, with four independent audio  
6 outputs that allow you to enjoy Bose sound throughout your home.”), 12 (illustrating a Bose  
7 Lifestyle 50 System configuration with a CD player and an Acoustimass module connected the  
8 Multi-Room Interface), 17 (illustrating various audio sources connected to Multi-Room Interface  
9 via audio input cables), 19 (“When batteries are first installed in the music center; it sets up a radio-  
10 frequency link with the closest multi-room interface.... If the music center continuously displays  
11 “NO RESPONSE,” you need to try to establish its link with the multi-room interface again.”), 42  
12 (Figure 47 showing “AUDIO OUTPUT” jacks for each room), 44-45 (explaining how to use  
13 ROOM and HOUSE buttons of the Personal Music Center to set up an audio source for one or  
14 more rooms connected to the Multi-Room Interface), 45 (“To add a new music center to your  
15 system, follow the setup instructions on page 17. Be sure to install the batteries and turn it on for  
16 the first time close to the multi-room interface to allow the new music center to set up a radio  
17 frequency link with your system. If the multi-room interface is not plugged in or the music center  
18 is out of range, the display indicates NO RESPONSE.”).

19 1424. Despite this clear evidence establishing that the Personal Music Center (and any  
20 other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination  
21 of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle 50 System did  
22 not have any “zone scenes” capability, Dr. Schonfeld nevertheless opines that claim limitation  
23 1.11 of Asserted Claim 1 of the ’966 Patent was either disclosed or rendered obvious by the Bose  
24 Lifestyle 50 System. *See* Schonfeld Op. Report at ¶ 1045. However, I find Dr. Schonfeld’s  
25 opinions regarding the Bose Lifestyle 50 System and claim limitation 1.11 of Asserted Claim 1 of  
26 the ’966 Patent to be flawed for several reasons.

27 1425. As an initial matter, the entirety of Dr. Schonfeld’s discussion regarding the Bose  
28 Lifestyle 50 System and claim limitation 1.11 of Asserted Claim 1 of the ’966 Patent is shown in



the screenshot below from Dr. Schonfeld's Opening Report:

(xii) *Limitation 1.11 based on the third request, causing the first zone player to transition from operating in the standalone mode to operating in accordance with the first predefined grouping of zone players such that the first zone player is configured to coordinate with at least the second zone player to output media in synchrony with output of media by at least the second zone player.*

1045. *See supra* '885 claim 1, Limitation 1.10.

1426. As these screenshots demonstrate, Dr. Schonfeld is relying exclusively on his prior discussion of the Bose Lifestyle 50 System in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a "zone player"), claim limitation 1.11 of Asserted Claim 1 of the '966 Patent uses different claim language than the limitations of Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion of the Bose Lifestyle 50 System in the context of the claim limitations of Asserted Claim 1 of the '885 Patent applies to claim limitation 1.11 of Asserted Claim 1 of the '966 Patent. In fact, Dr. Schonfeld fails to even state whether his opinion is that claim limitation 1.11 of Asserted Claim 1 of the '966 Patent was actually *disclosed* by the Bose Lifestyle 50 System versus whether his opinion is that claim limitation 1.11 of Asserted Claim 1 of the '966 Patent was only *rendered obvious* by the Bose Lifestyle 50 System. And along similar lines, Dr. Schonfeld never articulates what he considers to be the "third request to invoke the first zone scene" or what functionality satisfies the "causing" limitation in the Bose Lifestyle 50 System. For these reasons, I disagree that Dr. Schonfeld's barebones discussion of claim limitation 1.11 of Asserted Claim 1 of the '966 Patent amounts to a detailed and complete statement of all opinions to be expressed and the basis and reasons therefor, which I understand to be the governing standard for expert reports, and that barebones discussion has prejudiced my ability to fully discern, assess, and respond to his opinions

1 regarding claim limitation 1.11 of Asserted Claim 1 of the '966 Patent.<sup>65</sup>

2 1427. With that said, as I have discussed above in Section XV.C.1.iii as well as in my  
3 '885 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's analysis of  
4 the Bose Lifestyle 50 System in the context of Asserted Claim 1 of the '885 Patent suffers from a  
5 number of flaws, many of which are applicable to claim limitation 1.11 of Asserted Claim 1 of the  
6 '966 Patent as well – including that he relies on functionality that is not even part of the actual  
7 Bose Lifestyle 50 System, that he fails to identify what he is alleging to meet the various aspects  
8 of these claim limitations, and that his analysis is premised on both an incorrect interpretation of  
9 what is required to qualify as a “zone scene” and an inaccurate and misleading characterization of  
10 the Bose Lifestyle 50 System functionality and the evidence related thereto.

11 1428. For instance, Dr. Schonfeld's opinion that the Bose Lifestyle 50 System meets  
12 limitation 1.10 of Asserted Claim 1 of the '885 Patent (upon which he relies for limitation 1.11 of  
13 Asserted Claim 1 of the '966 Patent) is based on his analysis of “previous claim elements” of  
14 Asserted Claim 1 of the '885 Patent, which, as explained above, are based on functionality that is  
15 not related to or compatible with the actual Bose Lifestyle 50 System itself. *See* Schonfeld Op.  
16 Report at ¶¶ 960-961. For these reasons alone, Dr. Schonfeld's theory is flawed and he has failed  
17 to prove that the actual Bose Lifestyle 50 System discloses the claimed “zone scene” functionality  
18 of claim limitation 1.11 of Asserted Claim 1 of the '966 Patent.

19 1429. Further, in his section discussing the Bose Lifestyle 50 System and claim limitation  
20 1.10 of Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's entire analysis is the following  
21 statement: “[a]s described in the previous claim elements, a user may select a synchronization  
22 group for playback using the Player selector box, and use the playback controls to cause Bose  
23 LifeStyle to operate as a synchronous playback group.” *See* Schonfeld Op. Report at ¶¶ 960-962.  
24 This theory is flawed for numerous reasons.

25 1430. First, Dr. Schonfeld references his analysis of “previous claim elements,” which  
26 are flawed for all of the reasons stated above.

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27 <sup>65</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

1 1431. Second, Dr. Schonfeld references a “Player selector box,” but I am not aware of  
2 such a feature in the Bose Lifestyle 50 System. Instead, this appears to be referencing the “Player  
3 selector box” of Squeezebox, which I addressed above in my discussion of Squeezebox.

4 1432. Third, nowhere in this “analysis” does Dr. Schonfeld mention anything about  
5 Lifestyle players being “configured to coordinate” for synchronous playback, which is a  
6 requirement of limitation 1.10 of Asserted Claim 1 of the ’885 Patent as well as limitation 1.11 of  
7 Asserted Claim 1 of the ’966 Patent.

8 1433. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that the  
9 Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be  
10 relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
11 in the Bose Lifestyle 50 System did not have the functional capability required by limitation 1.11  
12 of Asserted Claim 1 of the ’966 Patent.

13 **xi. Asserted Claim 1 Would Not Have Been Obvious Based on The**  
14 **Bose Lifestyle 50 System in view of the Secondary References**  
15 **Identified by Dr. Schonfeld**

16 1434. In his Opening Report, Dr. Schonfeld does not offer any opinion that Asserted  
17 Claim 1 of the ’966 Patent is anticipated by the Bose Lifestyle 50 System. *See* Schonfeld Op.  
18 Report at Section XII.C, ¶¶ 1034-1065. Instead, Dr. Schonfeld only opines that Asserted Claim 1  
19 of the ’966 Patent is rendered obvious based on the Bose Lifestyle 50 System. *Id.*

20 1435. In particular, Dr. Schonfeld’s section for the ’966 Patent as compared to the Bose  
21 Lifestyle 50 System is entitled “‘966 Claims Are Obvious Based On Bose Lifestyle in view of  
22 General knowledge of a POSITA, the Sonos Forums, Nourse, Rajapakse or Millington.”  
23 Schonfeld Op. Report at Section XII.C. Dr. Schonfeld then includes a sub-section entitled “Claim  
24 1 Is Invalid Based On Bose Lifestyle in view of General knowledge of a POSITA, the Sonos  
25 Forums, Nourse, Rajapakse or Millington” where he lists out each limitation of Asserted Claim 1  
26 of the ’966 Patent, although Dr. Schonfeld does not provide any analysis of how the limitations of  
27 Asserted Claim 1 of the ’966 Patent are allegedly disclosed or rendered obvious by the Bose  
28 Lifestyle 50 System in view of General knowledge of a POSITA, the Sonos Forums, Nourse,

1 Rajapakse or Millington. *Id.* at Section X11.C.26, ¶¶ 1134-1045. Instead, Dr. Schonfeld merely  
2 refers back to the limitation-by-limitation analysis that he set forth in connection with his opinion  
3 that Asserted Claim 1 of the '885 Patent is rendered obvious based on the Bose Lifestyle 50  
4 System. *Id.*

5 1436. However the Asserted Claims of the '966 Patent are directed to a different type of  
6 device than Asserted Claim 1 of the '885 Patent (a “computing device” configured to “serv[e] as  
7 a controller” as opposed to a “zone player”), Asserted Claim 1 of the '966 Patent requires a  
8 different combination of claim limitations than Asserted Claim 1 of the '885 Patent, and Dr.  
9 Schonfeld fails to provide any further explanation as to how his prior obviousness analysis of  
10 Asserted Claim 1 of the '885 Patent applies to Asserted Claim 1 of the '966 Patent. As a result,  
11 Dr. Schonfeld fails to articulate how or why even a single claim limitation of Asserted Claim 1 of  
12 the '966 Patent would be rendered obvious based on “Bose Lifestyle in view of General knowledge  
13 of a POSITA, the Sonos Forums, Nourse, Rajapakse or Millington” as he states – let alone how or  
14 why the entire combination of claim limitations of Asserted Claim 1 of the '966 Patent would be  
15 rendered obvious based on “Bose Lifestyle in view of General knowledge of a POSITA, the Sonos  
16 Forums, Nourse, Rajapakse or Millington.” For these reasons, I disagree that Dr. Schonfeld has  
17 provided a detailed and complete statement of all opinions to be expressed and the basis and  
18 reasons therefor, which I understand to be the governing standard for expert reports, and Dr.  
19 Schonfeld’s failure to do so has prejudiced my ability to fully discern, assess, and respond to his  
20 obviousness opinions regarding Asserted Claim 1 of the '966 Patent.<sup>66</sup>

21 1437. Nevertheless, in the sub-sections below, I have made my best effort to assess and  
22 respond to Dr. Schonfeld’s unsupported and conclusory opinion that Asserted Claim 1 of the '966  
23 Patent is rendered obvious based on “Bose Lifestyle in view of General knowledge of a POSITA,  
24 the Sonos Forums, Nourse, Rajapakse or Millington.”

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27 <sup>66</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

(a) The Bose Lifestyle 50 System in view of the General  
Knowledge of a POSITA

1438. At Section XII.C of his Opening Report, Dr. Schonfeld states his opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on the Bose Lifestyle 50 System in view of the “general knowledge of a POSITA.” Schonfeld Op. Report at Section XII.C, ¶¶ 1034-1045. I disagree – in my opinion, claim 1 of the '966 Patent is not rendered obvious by the Bose Lifestyle 50 System in view of the “general knowledge of a POSITA,” and Dr. Schonfeld’s opinion to the contrary is flawed for several reasons.

1439. As an initial matter, Dr. Schonfeld fails to set forth any bases or reasoning for his stated opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on the Bose Lifestyle 50 System in view of the “general knowledge of a POSITA.” *See* Schonfeld Op. Report at ¶¶ 1034-1045. Instead, Dr. Schonfeld relies exclusively on the obviousness analysis that he set forth in connection with his opinion that Asserted Claim 1 of the '885 Patent is rendered obvious by the Bose Lifestyle 50 System in view of the “general knowledge of a POSITA,” without providing any explanation as to how that prior obviousness analysis of Asserted Claim 1 of the '885 Patent applies to Asserted Claim 1 of the '966 Patent. *Id.* For this reason alone, I find Dr. Schonfeld’s opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on the Bose Lifestyle 50 System in view of the “general knowledge of a POSITA” to be deficient.

1440. Additionally, Dr. Schonfeld’s obviousness analysis that he provides in connection with his opinion that Asserted Claim 1 of the '885 Patent is rendered obvious by the Bose Lifestyle 50 System in view of the “general knowledge of a POSITA” suffers from a number of flaws, many of which are applicable to the Asserted Claims of the '966 Patent as well.

1441. First, even if the Bose Lifestyle 50 System were to be modified in the various ways proposed by Dr. Schonfeld, such a hypothetical system still would not achieve either the specific player-side “zone scenes” functionality required by Asserted Claim 1 of the '885 Patent or the specific controller-side “zone scenes” functionality required by Asserted Claim 1 of the '966 Patent that Dr. Schonfeld failed to analyze.

1442. Second, Dr. Schonfeld’s proposed modifications to the Bose Lifestyle 50 System

1 are all nothing more high-level suggestions – such as “add[ing] overlapping groups” – and Dr.  
2 Schonfeld has failed to provide any explanation as to how these proposed modifications to a the  
3 Bose Lifestyle 50 System would have actually been implemented, let alone how the proposed  
4 modifications would have achieved either the specific player-side “zone scenes” functionality  
5 required by Asserted Claim 1 of the ’885 Patent or the specific controller-side “zone scenes”  
6 functionality required by Asserted Claim 1 of the ’966 Patent that Dr. Schonfeld failed to analyze.  
7 Moreover, in my opinion, implementing Dr. Schonfeld’s high-level suggestions would have  
8 required substantial, non-obvious modifications to the “shared source group” functionality of the  
9 Bose Lifestyle 50 System at the time.

10 1443. Third, I disagree that a POSITA in 2005-06 would have been motivated to modify  
11 the Bose Lifestyle 50 System in any one of the ways proposed by Dr. Schonfeld – let alone all of  
12 the different ways proposed by Dr. Schonfeld. As discussed above, the Bose Lifestyle 50 System  
13 already included ad-hoc “shared source group” functionality that allowed Lifestyle players to be  
14 grouped together on demand to play the same audio source simultaneously (albeit in a different way  
15 than the claimed “zone scenes” functionality), and I have not seen any evidence suggesting that a  
16 POSITA in 2005-06 would have recognized any particular problem with the Bose Lifestyle 50  
17 System’s ad-hoc “shared source group” functionality that would have led such a POSITA to consider  
18 a different mechanism for grouping Lifestyle players together – let alone would have led such a  
19 POSITA to implement the specific “zone scenes” functionality that is claimed in the ’885 and ’966  
20 Patents. For at least these reasons, I disagree that a POSITA in 2005-06 would have been motivated  
21 to replace the existing ad-hoc “shared source group” functionality of the Bose Lifestyle 50 System  
22 with the claimed “zone scenes” functionality, particularly in view of the time, effort, and cost that  
23 would have been required to overhaul the Bose Lifestyle 50 System’s grouping mechanism.

24 1444. Nevertheless, in his Opening Report, Dr. Schonfeld offers several unsupported,  
25 conclusory theories as to why it a POSITA in 2005-06 would have allegedly found it obvious to  
26 modify the Bose Lifestyle 50 System in the various ways proposed by Dr. Schonfeld. However,  
27 in addition to the fact that Dr. Schonfeld failed to articulate any reasoning as to why a POSITA  
28 would have been motivated to modify the Bose Lifestyle 50 System to achieve the specific

1 controller-side “zone scenes” functionality required by Asserted Claim 1 of the ‘966 Patent, I  
2 disagree with Dr. Schonfeld’s theories for the reasons explained below.

3 1445. Starting with paragraph 908 of his Opening Report, Dr. Schonfeld states as follows  
4 with respect to his proposed modification to “add overlapping groups”:

5 A POSITA would have been motivated to add overlapping groups because Bose  
6 LifeStyle’s own marketing materials touted the flexibility of its system to allow  
users to play back media throughout their household. *Supra*.

7 Schonfeld Op. Report at ¶ 908. I disagree. Bose’s marketing materials touting the ability “the  
8 flexibility of its system to allow users to play back media throughout their household” was a  
9 description of capabilities that purportedly *already existed* in the Bose Lifestyle 50 System. This  
10 statement informing potential customers about an existing capability of the Bose Lifestyle 50  
11 System would not have motivated a POSITA in 2005-06 to modify the Bose Lifestyle 50 System  
12 in any way – let alone a motivation to modify the Bose Lifestyle 50 System in the many ways  
13 required to achieve the specific controller-side “zone scenes” functionality required by Asserted  
14 Claim 1 of the ‘966 Patent.

15 1446. Turning next to paragraph 909 of his Opening Report, Dr. Schonfeld also states as  
16 follows with respect to his proposed modification to “add overlapping groups”:

17 A person of skill in the art would have recognized that by allowing a user to create  
18 speaker groups, those groups may either (1) allow overlapping group membership  
19 or (2) not allow overlapping group membership. Given that allowing overlapping  
20 group membership may be attractive to certain users because there was a recognized  
“need for dynamic control of the audio players as a group,” it would have been  
obvious to select allowing overlapping group membership when implementing  
speaker groups. ’885 Pat at 1:30-34.

21 Schonfeld Op. Report at ¶ 909. I disagree for the same reasons discussed above with respect to  
22 Sonos’s 2005 system.

23 1447. Specifically, as an initial matter, I disagree with Dr. Schonfeld’s suggestion that  
24 this would have simply been a matter of whether or not to “allow overlapping group membership.”  
25 The evidence I have reviewed shows that the Bose Lifestyle 50 System was employing a distinctly  
26 different type of grouping technology that would not even allow for “overlapping group  
27 membership” because “shared source groups” were temporary, ad-hoc groups that were  
28



1 automatically activated at the time they were created. As such, it would not have been possible to  
2 simply modify the existing grouping technology of the Bose Lifestyle 50 System to “allow  
3 overlapping group membership” – a completely different grouping technology would have been  
4 required. And in any event, modifying the Bose Lifestyle 50 System to “add overlapping groups”  
5 would not have achieved the specific “zone scenes” functionality required by either Asserted Claim  
6 1 of the '885 Patent or Asserted Claim 1 of the '966 Patent.

7 1448. Further, the fact that the inventor of the '966 Patent recognized a “need for dynamic  
8 control of the audio players as a group” does not establish that a POSITA in 2005-06 would have  
9 recognized that same need, and Dr. Schonfeld fails to identify any other evidence to support his  
10 statement that this need would have been recognized by a POSITA in 2005-06. And regardless,  
11 even if a POSITA in 2005-06 were to have recognized this need, I fail to see how that would have  
12 motivated a POSITA in 2005-06 to modify the Bose Lifestyle 50 System’s ad-hoc “shared source  
13 group” functionality at all given that it already allowed Lifestyle players to be controlled as a group –  
14 let alone would have motivated a POSITA in 2005-06 to replace the Bose Lifestyle 50 System’s  
15 ad-hoc “shared source group” functionality with the specific “zone scenes” functionality required  
16 by either Asserted Claim 1 of the '885 Patent or Asserted Claim 1 of the '966 Patent.

17 1449. Further yet, Dr. Schonfeld fails to identify any evidence in support of his statement  
18 that “allowing overlapping group membership may be attractive to certain users,” but even if this  
19 were true, Dr. Schonfeld fails to explain how or why this would have motivated a POSITA in  
20 2005-06 to replace the Bose Lifestyle 50 System’s ad-hoc “shared source group” functionality with  
21 the specific “zone scenes” functionality required by either Asserted Claim 1 of the '885 Patent or  
22 Asserted Claim 1 of the '966 Patent.

23 1450. Turning next to paragraphs 934-936 of his Opening Report, Dr. Schonfeld again  
24 cites to the section of Mr. Lambourne’s “Zone Scenes” design specification entitled “What  
25 happens to the Music that’s already playing when a Zone Scene is Started” and repeats his same  
26 argument that “[a] person of skill in the art would have found it obvious to choose from one of  
27 these possibilities— stop music, choose music, adopt the music of the only playing speaker, and  
28 continue playing the ‘standalone’ music—when adding a speaker to a group” because “[t]hese are

1 a limited number of obvious design options.” Schonfeld Op. Report at ¶¶ 934-936. However, Dr.  
2 Schonfeld’s reliance on this section of the “Zone Scenes” design specification to support this  
3 opinion is flawed for all of the same reasons explained above, and I also disagree with Dr.  
4 Schonfeld’s suggestion that configuring a Lifestyle player to “continue playing ‘standalone’  
5 music” after being added to a “shared source group” would have been recognized as an “obvious  
6 design option[]” by a POSITA in 2005-06 – the evidence I have reviewed shows that the Bose  
7 Lifestyle 50 System was employing a distinctly different type of grouping technology that only  
8 allowed a user to create temporary, ad-hoc “shared source groups” that were automatically  
9 activated and could never exist in an inactivate state, and configuring a Lifestyle player to  
10 “continue playing ‘standalone’ music” after being added to a “shared source group” would have  
11 been directly contrary to the principle of operation of that ad-hoc “shared source group”  
12 functionality. For this reason, a POSITA in 2005-06 would not have even considered configuring  
13 a Lifestyle player to “continue playing ‘standalone’ music” after being added to a “shared source  
14 group” as a possible option, nor would a POSITA in 2005-06 have been motivated to modify the  
15 Bose Lifestyle 50 System to implement this change, as that would have required a completely  
16 different grouping technology.

17 1451. Fourth, because there is no evidence that a POSITA in 2005-06 would have been  
18 motivated to modify the Bose Lifestyle 50 System in the many ways proposed by Dr. Schonfeld,  
19 it appears that Dr. Schonfeld has used the asserted claims as a roadmap to reach his conclusion  
20 that a POSITA would have found the claimed invention obvious based on the Bose Lifestyle 50  
21 System, which I understand to be improper.

22 1452. Thus, for these reasons, it is my opinion that Asserted Claim 1 of the ’966 Patent is  
23 not rendered obvious by the Bose Lifestyle 50 System alone.

24 **(b) The Bose Lifestyle 50 System in view of the Sonos**  
25 **Forums**

26 1453. At Section XII.C of his Opening Report, Dr. Schonfeld states his opinion that  
27 Asserted Claim 1 of the ’966 Patent is rendered obvious based on the Bose Lifestyle 50 System in  
28 view of the Sonos Forums. Schonfeld Op. Report at ¶¶ 1034-1045. I disagree – in my opinion,

1 Asserted Claim 1 of the '966 Patent is not rendered obvious by the Bose Lifestyle 50 System in  
2 view of the Sonos Forums, and Dr. Schonfeld's apparent opinion to the contrary is flawed for  
3 several reasons.

4 1454. As an initial matter, to the extent that Dr. Schonfeld is offering an opinion that that  
5 Asserted Claim 1 of the '966 Patent is rendered obvious based on the Bose Lifestyle 50 System in  
6 view of the Sonos Forums, Dr. Schonfeld fails to set forth any bases or reasoning for such an  
7 opinion. *See* Schonfeld Op. Report at ¶¶ 1034-1045. Instead, Dr. Schonfeld relies exclusively on  
8 the obviousness analysis that he set forth in connection with his opinion that Asserted Claim 1 of  
9 the '885 Patent is rendered obvious by the Bose Lifestyle 50 System, but Dr. Schonfeld also fails  
10 to provide any analysis of the Bose Lifestyle 50 System in view of the Sonos Forums in that section  
11 of his Opening Report. *Id.* For this reason alone, I find Dr. Schonfeld's opinion that Asserted  
12 Claim 1 of the '966 Patent is rendered obvious based on the Bose Lifestyle 50 System in view of  
13 the Sonos Forums to be deficient.

14 1455. Moreover, to the extent that Dr. Schonfeld does intend to offer an opinion that  
15 Asserted Claim 1 of the '966 Patent is rendered obvious based on the Bose Lifestyle 50 System in  
16 view of the Sonos Forums, I disagree with such an opinion for at least the same reasons explained  
17 in my other sections regarding Dr. Schonfeld's obviousness opinions that are based on the Bose  
18 Lifestyle 50 System and the Sonos Forums, including that neither the Bose Lifestyle 50 System  
19 nor the Sonos Forums disclose or suggest the controller-side "zone scenes" functionality of  
20 Asserted Claim 1 of the '966 Patent. Thus, even if the Bose Lifestyle 50 System were to be  
21 modified and combined with the Sonos Forums, such a hypothetical system still would not achieve  
22 either the specific player-side "zone scenes" functionality required by Asserted Claim 1 of the '885  
23 Patent or the specific controller-side "zone scenes" functionality required by Asserted Claim 1 of  
24 the '966 Patent that Dr. Schonfeld failed to analyze.

25 1456. In addition to these deficiencies, Dr. Schonfeld also fails to provide any explanation  
26 as to how the Bose Lifestyle 50 System would have actually been modified to incorporate the  
27 functionality of the Sonos Forums, why a POSITA in 2005-2006 would have been motivated to  
28 modify the Bose Lifestyle 50 System to incorporate the functionality of the Sonos Forums, or how

1 such a hypothetical system would have achieved either the specific player-side “zone scenes”  
2 functionality required by Asserted Claim 1 of the ’885 Patent or the specific controller-side “zone  
3 scenes” functionality required by Asserted Claim 1 of the ’966 Patent.

4 1457. Thus, for these reasons, it is my opinion that Asserted Claim 1 of the ’966 Patent is  
5 not rendered obvious by the Bose Lifestyle 50 System in view of the Sonos Forums.

6 **(c) The Bose Lifestyle 50 System in view of Nourse**

7 1458. At Section VII.C of his Opening Report, Dr. Schonfeld states his opinion that  
8 Asserted Claim 1 of the ’966 Patent is rendered obvious based on the Bose Lifestyle 50 System in  
9 view of Nourse. Schonfeld Op. Report at Section XII.C, ¶¶ 1034-1045. I disagree – in my opinion,  
10 Asserted Claim 1 of the ’966 Patent is not rendered obvious by the Bose Lifestyle 50 System in  
11 view of Nourse, and Dr. Schonfeld’s opinion to the contrary is flawed for several reasons.

12 1459. As an initial matter, Dr. Schonfeld fails to set forth any bases or reasoning that  
13 would support an opinion that Asserted Claim 1 of the ’966 Patent is rendered obvious based on  
14 the Bose Lifestyle 50 System in view of Nourse. *See* Schonfeld Op. Report at Section VII.C, ¶¶  
15 1001-1012. Instead, Dr. Schonfeld only discusses Nourse in the context of certain limitations of  
16 Asserted Claim 1 of the ’885 Patent, without providing any explanation as to how that discussion  
17 applies to Asserted Claim 1 of the ’966 Patent.

18 1460. Additionally, as I previously explained in my ’885 Rebuttal Report, Dr. Schonfeld’s  
19 discussion of Nourse that he includes in his analysis of Asserted Claim 1 of the ’885 Patent as  
20 compared to the Bose Lifestyle 50 System suffers from a number of flaws, many of which are  
21 applicable to the Asserted Claims of the ’966 Patent as well.

22 1461. First, Nourse was cited on the face of the ’966 Patent, which shows that Nourse  
23 was considered by the USPTO during prosecution of the ’966 Patent and that the ’966 Patent  
24 (including Asserted Claim 1) was allowed to issue over Nourse. *See* ’966 Patent at 4. Since the  
25 USPTO already considered Nourse, I understand that Dr. Schonfeld and Google have the added  
26 burden of overcoming the deference that is due to a qualified government agency, such as the  
27 USPTO, that is presumed to have properly done its job based on its expertise in interpreting  
28 references, its understanding of the level of ordinary skill in the art, and its duty to issue only valid

1 patents. However, it is my opinion that Dr. Schonfeld failed to satisfy this added burden.

2 1462. Second, for similar reasons to those discussed above in connection with Sonos's  
3 2005 system, Nourse fails to disclose or suggest the claimed "zone scene" functionality that was  
4 missing from a Squeezebox system. *Supra* Section XV.A.ix.c. Thus, even if a POSITA in 2005-  
5 06 were to modify and combine the Bose Lifestyle 50 System with the identified functionality of  
6 Nourse's "centralized speaker system" in the manner proposed by Dr. Schonfeld, such a  
7 hypothetical system still would not achieve either the specific player-side "zone scenes"  
8 functionality required by Asserted Claim 1 of the '885 Patent or the specific controller-side "zone  
9 scenes" functionality required by the Asserted Claims of the '966 Patent that Dr. Schonfeld failed  
10 to analyze.

11 1463. Third, Dr. Schonfeld has failed to provide any explanation as to how the Bose  
12 Lifestyle 50 System would have actually been modified to combine it with the identified  
13 functionality of Nourse's "centralized speaker system" – let alone how that alleged combination  
14 would have achieved the claimed invention.

15 1464. Fourth, I disagree that a POSITA in 2005-06 would have been motivated to modify  
16 the Bose Lifestyle 50 System to incorporate the identified functionality of Nourse's "centralized  
17 speaker system." As discussed above, the Bose Lifestyle 50 System already included ad-hoc "shared  
18 source group" functionality that allowed Lifestyle players to be grouped together on demand to play  
19 the same audio source simultaneously (albeit in a different way than the claimed "zone scenes"  
20 functionality), and I have not seen any evidence suggesting that a POSITA in 2005-06 would have  
21 recognized any particular problem with the Bose Lifestyle 50 System's ad-hoc "shared source group"  
22 functionality that would have led such a POSITA to consider a different mechanism for grouping  
23 Lifestyle players – let alone would have led such a POSITA to implement the identified functionality  
24 of Nourse's "centralized speaker system." For at least these reasons, I disagree that a POSITA in  
25 2005-06 would have been motivated to replace the existing ad-hoc "shared source group" functionality  
26 of the Bose Lifestyle 50 System with the identified functionality of Nourse's "centralized speaker  
27 system," particularly in view of the time, effort, and cost that would have been required to overhaul  
28 the grouping mechanism of the Bose Lifestyle 50 System.

1 1465. Nevertheless, in his Opening Report, Dr. Schonfeld offers several unsupported,  
2 conclusory theories as to why it a POSITA in 2005-06 would have allegedly found it obvious to  
3 combine the Bose Lifestyle 50 System with the identified functionality of Nourse's "centralized  
4 speaker system" in the specific manner proposed by Dr. Schonfeld. However, in addition to the fact  
5 that Dr. Schonfeld failed to provide any analysis as to how or why the combination of the Bose  
6 Lifestyle 50 System and Nourse achieves the specific controller-side "zone scenes" functionality  
7 required by Asserted Claim 1 of the '966 Patent, I disagree with Dr. Schonfeld's theories for the  
8 reasons explained below.

9 1466. For instance, at paragraph 910 of his Opening Report, Dr. Schonfeld says that a  
10 POSITA would have been motivated to combine the Bose Lifestyle 50 System with Nourse  
11 because Nourse is "analogous to the '885 patent" and "reasonably pertinent to the problem to be  
12 solved by the '885 patent . . . ." Schonfeld Op. Report at ¶ 910. However, these generic statements  
13 fail to establish why a POSITA in 2005-06 would have been motivated to make any modification  
14 to the Bose Lifestyle 50 System at all – let alone why a POSITA in 2005-06 would have been  
15 motivated to combine the Bose Lifestyle 50 System with Nourse in the specific manner proposed  
16 by Dr. Schonfeld.

17 1467. At paragraph 910 of his Opening Report, Dr. Schonfeld also states as follows:  
18 Nourse teaches additional means for improving the user experience by allowing a  
19 user to add a playback device to multiple groups. Nourse at 3:57-4:5. It would have  
20 been desirable to allow a user to have a particular zone player join multiple groups  
21 (e.g., the kitchen and patio could be grouped for outside entertainment, and the  
22 kitchen and living room could be grouped for inside entertainment). Having a  
23 speaker join multiple groups would increase the number of customized  
24 combinations a user could configure in their home, as the Bose Lifestyle recognizes  
25 as an important feature.  
26 Schonfeld Op. Report at ¶ 910. Dr. Schonfeld fails to support this statement that "[i]t would have  
27 been desirable to allow a user to have a particular zone player join multiple groups" with any  
28 evidence, but even if a POSITA in 2005-06 were to have recognized that this functionality was  
"desirable," I fail to see any evidence that this recognition would have motivated such a POSITA  
to replace the existing ad-hoc "sync group" functionality of the Bose Lifestyle 50 System with the  
identified functionality of Nourse – particularly given that (i) the existing ad-hoc "shared source

1 group” functionality of the Bose Lifestyle 50 System already provided a mechanism for grouping  
2 Lifestyle players together and (ii) the Bose Lifestyle 50 System had a distinctly different system  
3 architecture and communication protocol than Nourse’s conventional “centralized speaker  
4 system.” Moreover, even if a POSITA in 2005-06 were to have recognized that it was “desirable”  
5 to modify the Bose Lifestyle 50 System to “allow a user to have a particular zone player join  
6 multiple groups” as Dr. Schonfeld contends, this still would not have motivated a POSITA to  
7 combine the Bose Lifestyle 50 System with the identified functionality of Nourse’s “centralized  
8 speaker system” or otherwise modify the Bose Lifestyle 50 System in the specific ways that would  
9 have been required in order to achieve either the specific player-side “zone scenes” functionality  
10 required by Asserted Claim 1 of the ’885 Patent or the specific controller-side “zone scenes”  
11 functionality required by the Asserted Claims of the ’966 Patent that Dr. Schonfeld failed to  
12 analyze.

13 1468. I have also seen evidence of affirmative reasons why a POSITA would not have  
14 been motivated to combine the Bose Lifestyle 50 System with the identified functionality of  
15 Nourse’s “centralized speaker system. For instance, as explained above, the Bose Lifestyle 50  
16 System had a distinctly different system architecture than Nourse’s conventional “centralized  
17 speaker system,” which requires, among other things, a “central station” with a “collocated”  
18 amplifier. Additionally, as explained above, Nourse’s “centralized speaker system” was primary  
19 designed to serve as a public address system, whereas the Bose Lifestyle 50 System was primary  
20 designed to serve as home audio system. Further, as explained above, the Personal Music Center  
21 and Multi-Room Interface of the Bose Lifestyle 50 System, which are used to set up a “shared  
22 source group” of Lifestyle players, communicate using a proprietary radio frequency  
23 communication protocol that was specifically developed for the Bose Lifestyle 50 System and that  
24 is “not compatible” with protocols used in other Bose systems, much less any third-party system  
25 like the one in Nourse. *See* BOSE\_SUB-0000663-683 at 666. Given these differences, it is my  
26 opinion that a POSITA would have been dissuaded from modifying the Bose Lifestyle 50 System  
27 to combine it with the identified functionality of Nourse’s “centralized speaker system.”

28 1469. Finally, because there is no evidence that a POSITA in 2005-06 would have been



1 motivated to modify the Bose Lifestyle 50 System to combine it with the identified functionality  
2 of Nourse, it appears that Dr. Schonfeld has used the asserted claims as a roadmap to reach his  
3 conclusion that a POSITA would have found the claimed invention obvious based on the Bose  
4 Lifestyle 50 System in combination with Nourse, which I understand to be improper. *Compare*  
5 Schonfeld Op. Report, ¶ 910 (“It would have been desirable to allow a user to have a particular  
6 zone player join multiple groups (e.g., the kitchen and patio could be grouped for outside  
7 entertainment, and the kitchen and living room could be grouped for inside entertainment). Having  
8 a speaker join multiple groups would increase the number of customized combinations a user could  
9 configure in their home, as the Bose Lifestyle recognizes as an important feature.”) *with* ’966  
10 Patent, 8:62-67 (“Expanding this idea further, a Zone Scene can be set to create multiple sets of  
11 linked zones. For example, a scene creates 3 separate groups of zones, the downstairs zones would  
12 be linked together, the upstairs zones would be linked together in their own group, and the outside  
13 zones (in this case the patio) would move into a group of its own.”), 2:18-24 (“There is a need for  
14 dynamic control of the audio players as a group. With a minimum manipulation, the audio players  
15 may be readily grouped. In a traditional multi-zone audio system, the audio players have to be  
16 adjusted one at a time, resulting in an inconvenient and non-homogenous audio environment.”).

17 1470. Thus, for these reasons, it is my opinion that Asserted Claim 1 of the ’966 Patent is  
18 not rendered obvious by the Bose Lifestyle 50 System in combination with Nourse.

19 **(d) The Bose Lifestyle 50 System in view of Rajapakse**

20 1471. At Section VII.C of his Opening Report, Dr. Schonfeld states his opinion that  
21 Asserted Claim 1 of the ’966 Patent is rendered obvious based on the Bose Lifestyle 50 System in  
22 view of Rajapakse. Schonfeld Op. Report at Section XII.C, ¶¶ 1034-1045. I disagree – in my  
23 opinion, Asserted Claim 1 of the ’966 Patent is not rendered obvious by the Bose Lifestyle 50  
24 System in view of Rajapakse, and Dr. Schonfeld’s opinion to the contrary is flawed for several  
25 reasons.

26 1472. As an initial matter, Dr. Schonfeld fails to set forth any bases or reasoning that  
27 would support an opinion that Asserted Claim 1 of the ’966 Patent is rendered obvious based on  
28 the Bose Lifestyle 50 System in view of Rajapakse. *See* Schonfeld Op. Report at Section VII.C,

¶¶ 1001-1012. Instead, Dr. Schonfeld only discusses Rajapakse in the context of certain limitations of Asserted Claim 1 of the '885 Patent, without providing any explanation as to how that discussion applies to Asserted Claim 1 of the '966 Patent.

1473. Additionally, as I previously explained in my '885 Rebuttal Report, Dr. Schonfeld's discussion of Rajapakse that he includes in his analysis of Asserted Claim 1 of the '885 Patent as compared to the Bose Lifestyle 50 System suffers from a number of flaws, many of which are applicable to the Asserted Claims of the '966 Patent as well.

1474. First, as explained above, Dr. Schonfeld has failed to establish that Rajapakse qualifies as prior art to claim 1 of the '885 Patent. *Supra* Section XIII.I.

1475. Second, not only was Rajapakse cited on the face of several other Sonos patents as acknowledged by Dr. Schonfeld (Schonfeld Op. Report at ¶ 911), Rajapakse was also cited on the face of the '966 Patent. '966 Patent at 5. This shows that Rajapakse was considered by the USPTO during prosecution of the '966 Patent and that the '966 Patent (including Asserted Claim 1) was allowed to issue over Rajapakse. Since the USPTO already considered Rajapakse, I understand that Dr. Schonfeld and Google have the added burden of overcoming the deference that is due to a qualified government agency, such as the USPTO, that is presumed to have properly done its job based on its expertise in interpreting references, its understanding of the level of ordinary skill in the art, and its duty to issue only valid patents. However, it is my opinion that Dr. Schonfeld failed to satisfy this added burden.

1476. Third, for similar reasons to those discussed above in connection with Sonos's 2005 system, Rajapakse fails to disclose or suggest the claimed "zone scene" functionality that was missing from the Bose Lifestyle 50 System. *Supra* Section XV.A.ix.h. Thus, even if a POSITA in 2005-06 were to modify and combine the Bose Lifestyle 50 System with the identified functionality of Rajapakse's system in the manner proposed by Dr. Schonfeld, such a hypothetical system still would not achieve either the specific player-side "zone scenes" functionality required by Asserted Claim 1 of the '885 Patent or the specific controller-side "zone scenes" functionality required by Asserted Claim 1 of the '966 Patent that Dr. Schonfeld failed to analyze.

1477. Fourth, Dr. Schonfeld has failed to provide any explanation as to how the Bose

1 Lifestyle 50 System would have actually been modified to incorporate the identified functionality  
2 of Rajapakse's system – let alone how that alleged combination would have achieved the claimed  
3 invention.

4 1478. Fifth, I disagree that a POSITA in 2005-06 would have been motivated to modify  
5 the Bose Lifestyle 50 System to incorporate the identified functionality of Rajapakse's system. As  
6 discussed above, the Bose Lifestyle 50 System already included ad-hoc "shared source group"  
7 functionality that allowed Lifestyle players to be grouped together on demand to play the same audio  
8 source simultaneously (albeit in a different way than the claimed "zone scenes" functionality), and I  
9 have not seen any evidence suggesting that a POSITA in 2005-06 would have recognized any  
10 particular problem with the Bose Lifestyle 50 System's ad-hoc "shared source group" functionality  
11 that would have led such a POSITA to consider a different mechanism for grouping Lifestyle players  
12 together – let alone would have led such a POSITA to implement the identified functionality of  
13 Rajapakse's system. For at least these reasons, I disagree that a POSITA in 2005-06 would have been  
14 motivated to replace the existing ad-hoc "sync group" functionality of the Bose Lifestyle 50 System  
15 with the identified functionality of Rajapakse's system, particularly in view of the time, effort, and  
16 cost that would have been required to overhaul the grouping mechanism of the Bose Lifestyle 50  
17 System.

18 1479. In his Opening Report, Dr. Schonfeld says that a POSITA would have found it  
19 obvious to combine the Bose Lifestyle 50 System with Rajapakse for the sole reason that  
20 "Rajapakse was cited by many Sonos patents regarding speaker grouping, including patents from  
21 the same family as the '885 patent" as well as third-party patents, including Google's own patents,  
22 that are "closely related to the '885 patent." Schonfeld Op. Report at ¶ 911. However, these  
23 generic statements fail to establish why a POSITA in 2005-06 would have been motivated to make  
24 any modification to the Bose Lifestyle 50 System at all – let alone why a POSITA in 2005-06  
25 would have been motivated to combine the Bose Lifestyle 50 System with Rajapakse in the  
26 specific manner proposed by Dr. Schonfeld.

27 1480. I have also seen evidence of affirmative reasons why a POSITA would not have  
28 been motivated to combine the Bose Lifestyle 50 System with the identified functionality of

1 Rajapakse's system.

2 1481. For example, because the Bose Lifestyle 50 System had a different system  
3 architecture than Rajapakse's system, which requires a number of different components to  
4 facilitate its "zone" functionality, including a "bridge renderer 205," a "distribution server 204,"  
5 and a "zone manager 210," among others (*see* Rajapakse at FIGs. 2-5; *see also id.* at 11:7-18), it  
6 is my opinion that a POSITA would have been dissuaded from modifying the Bose Lifestyle 50  
7 System to combine it with the identified functionality of Rajapakse's system because, for example,  
8 adding Rajapakse's "zone" functionality would have required adding additional components to the  
9 Bose Lifestyle 50 System and thereby altered the operation of the Bose Lifestyle 50 System.

10 1482. As another example, the Personal Music Center and Multi-Room Interface of the  
11 Bose Lifestyle 50 System, which are used to set up a "shared source" of audio for multiple Lifestyle  
12 players, communicate using a proprietary radio frequency communication protocol that was  
13 specifically developed for the Bose Lifestyle 50 System and that is "not compatible" with protocols  
14 used in other Bose systems, much less any third-party system like the one in Rajapakse. *See*  
15 BOSE\_SUB-0000663-683 at 666. As such, a POSITA would have been dissuaded from  
16 modifying the Bose Lifestyle 50 System to combine it with the identified functionality of  
17 Rajapakse.

18 1483. These examples show that a POSITA would have been dissuaded from modifying  
19 the Bose Lifestyle 50 System because, to the extent it was even possible, it would have required  
20 wholesale changes to the system architecture and communication protocol of the Bose Lifestyle  
21 50 System in order to, for example, enable the Personal Music Center and/or Multi-Room Interface  
22 of the Bose Lifestyle 50 System to communicate with the additional components from Rajapakse  
23 that are required to facilitate Rajapakse's "zone" functionality.

24 1484. Finally, because there is no evidence that a POSITA in 2005-06 would have been  
25 motivated to modify the Bose Lifestyle 50 System to combine it with the identified functionality  
26 of Rajapakse, it appears that Dr. Schonfeld has used the asserted claims as a roadmap to reach his  
27 conclusion that a POSITA would have found the claimed invention obvious based on the Bose  
28 Lifestyle 50 System in combination with Rajapakse, which I understand to be improper. *See*

1 Schonfeld Op. Report, ¶ 911 (“Rajapakse was cited by many Sonos patents regarding speaker  
2 grouping, including patents from the same family as the ’885 patent, indicating that persons of  
3 skill in the art recognized that Rajapakse was highly relevant to the claimed features.”).

4 1485. Thus, for these reasons, it is my opinion that Asserted Claim 1 of the ’966 Patent  
5 is not rendered obvious by the Bose Lifestyle 50 System in combination with Rajapakse.

6 **(e) The Bose Lifestyle 50 System in view of Millington**

7 1486. At Section VII.C of his Opening Report, Dr. Schonfeld states his opinion that  
8 Asserted Claim 1 of the ’966 Patent is rendered obvious based on the Bose Lifestyle 50 System in  
9 view of Millington. Schonfeld Op. Report at Section XII.C, ¶¶ 1034-1045. I disagree – in my  
10 opinion, Asserted Claim 1 of the ’966 Patent is not rendered obvious by the Bose Lifestyle 50  
11 System in view of Millington, and Dr. Schonfeld’s opinion to the contrary is flawed for several  
12 reasons.

13 1487. As an initial matter, Dr. Schonfeld fails to set forth any bases or reasoning for this  
14 opinion that Asserted Claim 1 of the ’966 Patent is rendered obvious based on the Bose Lifestyle  
15 50 System in view of Millington. *See* Schonfeld Op. Report at Section VII.B, ¶¶ 1034-1045.  
16 Instead, Dr. Schonfeld relies exclusively on the obviousness analysis that he set forth in connection  
17 with his opinion that Asserted Claim 1 of the ’885 Patent is rendered obvious by the Bose Lifestyle  
18 50 System in view of Millington, without providing any explanation as to how that prior  
19 obviousness analysis of Asserted Claim 1 of the ’885 Patent applies to Asserted Claim 1 of the  
20 ’966 Patent. *Id.* For this reason alone, I find Dr. Schonfeld’s opinion that Asserted Claim 1 of the  
21 ’966 Patent is rendered obvious based on the Bose Lifestyle 50 System in view of Millington to  
22 be deficient.

23 1488. Additionally, as I previously explained in my ’885 Rebuttal Report, Dr. Schonfeld’s  
24 obviousness analysis that he provides in connection with his opinion that Asserted Claim 1 of the  
25 ’885 Patent is rendered obvious by the Bose Lifestyle 50 System in view of Millington suffers  
26 from a number of flaws, many of which are applicable to the Asserted Claims of the ’966 Patent  
27 as well.

28 1489. First, Millington was cited on the face of the ’966 Patent, which shows that

1 Millington was considered by the USPTO during prosecution of the '966 Patent and that the '966  
2 Patent (including Asserted Claim 1) was allowed to issue over Millington. *See* '966 Patent at 5  
3 (citing to U.S. Pat. No. 8,234,395, which is a U.S. counterpart to the Millington Canadian patent  
4 relied upon by Dr. Schonfeld). Since the USPTO already considered Millington, I understand that  
5 Dr. Schonfeld and Google have the added burden of overcoming the deference that is due to a  
6 qualified government agency, such as the USPTO, that is presumed to have properly done its job  
7 based on its expertise in interpreting references, its understanding of the level of ordinary skill in  
8 the art, and its duty to issue only valid patents. However, it is my opinion that Dr. Schonfeld  
9 failed to satisfy this added burden.

10 1490. Second, for similar reasons to those discussed above in connection with Sonos's  
11 2005 system, Millington fails to disclose or suggest the claimed "zone scene" functionality that  
12 was missing from the Bose Lifestyle 50 System. *Supra* Section XV.A.ix.d. Thus, even if a  
13 POSITA in 2005-06 were to modify and combine the Bose Lifestyle 50 System with the identified  
14 functionality of Millington's "network audio system" in the manner proposed by Dr. Schonfeld,  
15 such a hypothetical system still would not achieve either the specific player-side "zone scenes"  
16 functionality required by Asserted Claim 1 of the '885 Patent or the specific controller-side "zone  
17 scenes" functionality required by Asserted Claim 1 of the '966 Patent that Dr. Schonfeld failed to  
18 analyze.

19 1491. Third, Dr. Schonfeld has failed to provide any explanation as to how the Bose  
20 Lifestyle 50 System would have actually been modified to incorporate the identified functionality  
21 of Millington's "network audio system" – let alone how that alleged combination would have  
22 achieved the claimed invention.

23 1492. Fourth, I disagree that a POSITA in 2005-06 would have been motivated to modify  
24 the Bose Lifestyle 50 System to incorporate the identified grouping functionality of Millington's  
25 "network audio system." As discussed above, the Bose Lifestyle 50 System already included ad-  
26 hoc "shared source group" functionality that allowed Lifestyle players to be grouped together on  
27 demand to play the same audio source simultaneously (albeit in a different way than the claimed "zone  
28 scenes" functionality), and I have not seen any evidence suggesting that a POSITA in 2005-06 would

1 have recognized any particular problem with the Bose Lifestyle 50 System’s ad-hoc “shared source  
2 group” functionality that would have led such a POSITA to consider a different mechanism for  
3 grouping Lifestyle players – let alone would have led such a POSITA to implement the identified  
4 functionality of Millington’s “network audio system.” For at least these reasons, I disagree that a  
5 POSITA in 2005-06 would have been motivated to replace the existing ad-hoc “shared source group”  
6 functionality of the Bose Lifestyle 50 System with the identified functionality of Millington’s  
7 “network audio system,” particularly in view of the time, effort, and cost that would have been  
8 required to overhaul the grouping mechanism of the Bose Lifestyle 50 System.

9 1493. In his Opening Report, Dr. Schonfeld says that a POSITA would have been  
10 motivated to combine the Bose Lifestyle 50 System with Millington because “Mr. Millington  
11 worked on Sonos products that are in the same field of endeavor as the Bose Lifestyle, and  
12 therefore it would have been an obvious choice to look to for guidance about potential  
13 modifications to that system,” and that “a POSITA would have looked to Millington to understand  
14 the Sonos System or its competitors, like Bose LifeStyle.” Schonfeld Op. Report at ¶ 922.  
15 However, these generic statements fail to establish why a POSITA in 2005-06 would have been  
16 motivated to make any modification to the Bose Lifestyle 50 System at all – let alone why a  
17 POSITA in 2005-06 would have been motivated to replace the Bose Lifestyle 50 System’s ad-hoc  
18 “shared source group” functionality with the grouping functionality of Millington’s “networked  
19 audio system.” Moreover, it is unclear why Dr. Schonfeld states that a POSITA “would have looked  
20 to Millington to understand the ... Bose LifeStyle” because Millington does not describe the Bose  
21 LifeStyle system. *Id.* Further, Dr. Schonfeld’s statement that “Millington was also assigned to  
22 Sonos and was filed in the same timeframe as the Sonos System was released” has no bearing on  
23 whether a POSITA would have been motivated to combine the Bose Lifestyle 50 System with  
24 Millington. *Id.*

25 1494. In his Opening Report, Dr. Schonfeld also states as follows:

26 [A] person of skill in the art would have been motivated to combine Bose LifeStyle  
27 with Millington. They are both in the same field of endeavor—control of speaker  
28 systems, speaker groups, synchronous playback of speakers, and home audio  
systems—and they both describe the same features and devices (e.g., “zone



1 players”) in the same language.

2 Schonfeld Op. Report at ¶ 939.

3 1495. However, this statement appears to be carried over from the Sonos prior art section  
4 of Dr. Schonfeld’s Opening Report and does not apply to the alleged combination of the Bose  
5 Lifestyle 50 System with Millington. The Bose Lifestyle 50 System and Millington do not “describe  
6 the same features and devices (e.g., “zone players”) in the same language.” *Id.*

7 1496. I have also seen evidence of affirmative reasons why a POSITA would not have  
8 been motivated to replace the Bose Lifestyle 50 System’s ad-hoc “shared source group”  
9 functionality with the grouping functionality of Millington’s “networked audio system.”

10 1497. For example, the Bose Lifestyle 50 System had a different distinctly system  
11 architecture than Millington’s “networked audio system” because it relied on a centralized device  
12 called a Multi-Room Interface that was exclusively responsible for the “shared source group”  
13 functionality of the Bose Lifestyle 50 System. Given this difference in the system architectures, a  
14 POSITA would have been dissuaded from modifying the Bose Lifestyle 50 System to replace its  
15 ad-hoc “shared source group” functionality with the grouping functionality of Millington’s  
16 “networked audio system.”

17 1498. Along similar lines, as explained above, Millington discloses a “network audio  
18 system” that includes “zone players” that are capable of being added to a “synchrony group”  
19 comprising a set of “zone players” that are configured to “play the same audio program  
20 synchronously” by coordinating with one another over a data network. *Supra* Section XIII.E. In  
21 contrast, the Bose Lifestyle 50 System was a conventional centralized audio system with Lifestyle  
22 players that were hardwired via audio cable to a centralized Multi-Room Interface and did not have  
23 the capability to coordinate with one another over a data network for synchronous audio playback.  
24 *See* BOSE\_SUB-0000001-55 at 11-12. Given these fundamental differences between the  
25 centralized Bose Lifestyle 50 System and Millington’s “network audio system” it is my opinion  
26 that a POSITA would have been dissuaded from modifying Sonos’s 2005 system to combine it  
27 with the identified functionality of Millington’s network audio system.

28 1499. As another example, the Personal Music Center and Multi-Room Interface of the

1 Bose Lifestyle 50 System, which are used to set up a “shared source” of audio for multiple Lifestyle  
2 players, communicate using a proprietary radio frequency communication protocol that was  
3 specifically developed for the Bose Lifestyle 50 System and that is “not compatible” with protocols  
4 used in other Bose systems, much less any third-party system like the one in Millington. *See*  
5 BOSE\_SUB-0000663-683 at 666. As such, a POSITA would have been dissuaded from  
6 modifying the Bose Lifestyle 50 System to combine it with the identified functionality of  
7 Millington.

8 1500. These examples show that a POSITA would have been dissuaded from modifying  
9 the Bose Lifestyle 50 System because, to the extent it was even possible, it would have required  
10 wholesale changes to the system architecture and communication protocol of the Bose Lifestyle  
11 50 System.

12 1501. Finally, because there is no evidence that a POSITA in 2005-06 would have been  
13 motivated to modify the Bose Lifestyle 50 System to combine it with the identified functionality  
14 of Millington, it appears that Dr. Schonfeld has used the asserted claims as a roadmap to reach his  
15 conclusion that a POSITA would have found the claimed invention obvious based on the Bose  
16 Lifestyle 50 System in combination with Millington, which I understand to be improper.

17 1502. Thus, for these reasons, it is my opinion that Asserted Claim 1 of the '966 Patent is  
18 not rendered obvious by the Bose Lifestyle 50 System in combination with Millington.

19 **(f) The Bose Lifestyle 50 System in view of Squeezebox**

20 1503. At Section XII.C of his Opening Report, entitled “‘966 Claims Are Obvious Based  
21 On Bose Lifestyle in view of General knowledge of a POSITA, the Sonos Forums, Nourse,  
22 Rajapakse or Millington,” Dr. Schonfeld does not identify the Bose Lifestyle 50 System in view  
23 of Squeezebox as an obviousness combination for Asserted Claim 1 of the '966 Patent. Schonfeld  
24 Op. Report at ¶¶1034-1045. However, in his earlier “Summary of Opinions” section, Dr.  
25 Schonfeld includes a bullet stating that “Bose in combination with Sonos Forums, *Squeezebox*,  
26 Millington, and/or Nourse renders the asserted claims obvious.” *Id.* at ¶ 6. In view of this  
27 inconsistency, it is not clear whether Dr. Schonfeld is offering an opinion that Asserted Claim 1  
28 of the '966 Patent is rendered obvious based on the Bose Lifestyle 50 System in view of

1 Squeezebox, but to the extent he is offering such an opinion, I disagree – in my opinion, Asserted  
2 Claim 1 of the '966 Patent is not rendered obvious by the Bose Lifestyle 50 System in view of  
3 Squeezebox, and Dr. Schonfeld's apparent opinion to the contrary is flawed for several reasons.

4 1504. As an initial matter, to the extent that Dr. Schonfeld is offering an opinion that that  
5 Asserted Claim 1 of the '966 Patent is rendered obvious based on the Bose Lifestyle 50 System in  
6 view of Squeezebox, Dr. Schonfeld fails to set forth any bases or reasoning for such an opinion.  
7 *See* Schonfeld Op. Report at ¶¶ 1034-1045. Instead, Dr. Schonfeld relies exclusively on the  
8 obviousness analysis that he set forth in connection with his opinion that Asserted Claim 1 of the  
9 '885 Patent is rendered obvious by the Bose Lifestyle 50 System, but Dr. Schonfeld also fails to  
10 provide any analysis of the Bose Lifestyle 50 System in view of Squeezebox in that section of his  
11 Opening Report. *Id.* For this reason alone, I find Dr. Schonfeld's opinion that Asserted Claim 1  
12 of the '966 Patent is rendered obvious based on the Bose Lifestyle 50 System in view of  
13 Squeezebox to be deficient.

14 1505. Moreover, to the extent that Dr. Schonfeld does intend to offer an opinion that  
15 Asserted Claim 1 of the '966 Patent is rendered obvious based on the Bose Lifestyle 50 System in  
16 view of Squeezebox, I disagree with such an opinion for at least the same reasons explained in my  
17 other sections regarding Dr. Schonfeld's obviousness opinions that are based on the Bose Lifestyle  
18 50 System and Squeezebox, including that neither the Bose Lifestyle 50 System nor Squeezebox  
19 included any "zone scenes" functionality at all. Thus, even if the Bose Lifestyle 50 System were  
20 to be modified and combined with Squeezebox, such a hypothetical system still would not achieve  
21 either the specific player-side "zone scenes" functionality required by Asserted Claim 1 of the '885  
22 Patent or the specific controller-side "zone scenes" functionality required by Asserted Claim 1 of  
23 the '966 Patent that Dr. Schonfeld failed to analyze.

24 1506. In addition to these deficiencies, Dr. Schonfeld also fails to provide any explanation  
25 as to how the Bose Lifestyle 50 System would have actually been modified to incorporate the  
26 functionality of Squeezebox, why a POSITA in 2005-2006 would have been motivated to modify  
27 the Bose Lifestyle 50 System to incorporate the functionality of Squeezebox, or how such a  
28 hypothetical system would have achieved either the specific player-side "zone scenes"

1 functionality required by Asserted Claim 1 of the '885 Patent or the specific controller-side "zone  
2 scenes" functionality required by Asserted Claim 1 of the '966 Patent.

3 1507. Thus, for these reasons, it is my opinion that Asserted Claim 1 of the '966 Patent is  
4 not rendered obvious by the Bose Lifestyle 50 System in view of Squeezebox.

5 **xii. Summary**

6 1508. As discussed above, there are a number of different limitations of Asserted Claim  
7 1 of the '966 Patent that are neither disclosed by the Bose Lifestyle 50 System nor rendered  
8 obvious by the Bose Lifestyle 50 System either in view of the general knowledge of a POSITA,  
9 the Sonos Forums, Nourse, Rajapakse, or Millington, or any of the other secondary references  
10 identified by Dr. Schonfeld. Any one of these claim limitations serves as a separate basis for my  
11 opinion that Asserted Claim 1 of the '966 Patent is not rendered obvious by the Bose Lifestyle 50  
12 System in view of the general knowledge of a POSITA, the Sonos Forums, Nourse, Rajapakse, or  
13 Millington, or any of the other secondary references identified by Dr. Schonfeld, and when taken  
14 collectively, these claim limitations provide even further support for my opinion that Asserted  
15 Claim 1 of the '966 Patent is not rendered obvious by the Bose Lifestyle 50 System in view of the  
16 general knowledge of a POSITA, the Sonos Forums, Nourse, Rajapakse, or Millington, or any of  
17 the other secondary references identified by Dr. Schonfeld.

18 1509. Further, I note that Dr. Schonfeld appears to have only performed his obviousness  
19 analysis for Asserted Claim 1 of the '885 Patent on a limitation-by-limitation basis, and has not  
20 performed any analysis or offered any opinions as to whether Asserted Claim 1 of the '885 Patent  
21 as a whole would have been obviousness, which I understand to be improper.

22 1510. Further yet, I note that Dr. Schonfeld has only offered obviousness opinions with  
23 respect to the Bose Lifestyle 50 System as combined with one other reference, and has not  
24 performed any analysis or offered any opinions as to whether a POSITA in 2005-06 would have  
25 been motivated to modify and combine the Bose Lifestyle 50 System with multiple different  
26 references.

27 1511. Accordingly, for all of the reasons explained above, it is my opinion that Asserted  
28 Claim 1 of the '966 Patent is not rendered obvious by the Bose Lifestyle 50 System in view of the

1 general knowledge of a POSITA, the Sonos Forums, Nourse, Rajapakse, or Millington, or any of  
2 the other secondary references identified by Dr. Schonfeld.

3 **2. Asserted Claim 2 is Not Rendered Obvious Based on the Bose Lifestyle**

4 **50 System**

5 1512. Asserted Claim 2 of the '966 Patent depends from Asserted Claim 1 of the '966  
6 Patent and requires the following:

7 **[2.0]** The computing device of claim 1, further comprising program instructions stored  
8 on the non-transitory computer-readable medium that, when executed by the one or more  
9 processors, cause the computing device to perform functions comprising:

10 **[2.1]** while the first zone player is configured to coordinate with at least the  
11 second zone player to play back media in synchrony with at least the second zone  
12 player, receiving a fourth request to invoke the second zone scene; and

13 **[2.2]** based on the fourth request, causing the first zone player to (a) cease to  
14 operate in accordance with the first predefined grouping of zone players such that  
15 the first zone player is no longer configured to coordinate with at least the second  
16 zone player to output media in synchrony with output of media by at least the second  
17 zone player and (b) begin to operate in accordance with the second  
18 predefined grouping of zone players such that the first zone player is configured to  
19 coordinate with at least the third zone player to output media in synchrony with  
20 output of media by at least the third zone player.

21 1513. Thus, Asserted Claim 2 of the '966 Patent requires the claimed "computing device"  
22 to be programmed with functionality for invoking the claimed "second zone scene" at a time when  
23 the "first zone scene" is currently invoked and the first and second "zone players" are "configured  
24 to coordinate" with one another for synchronous playback in accordance with the "first zone  
25 scene."

26 1514. In my opinion, Asserted Claim 2 of the '966 Patent is not rendered obvious based  
27 the Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the Sonos Forums,  
28 Nourse, Rajapakse, or Millington, or any of the other secondary references identified by Dr.  
Schonfeld.

1515. Indeed, because Asserted Claim 2 of the '966 Patent depends from Asserted Claim  
1 of the '966 Patent, it is my opinion that Asserted Claim 2 of the '966 Patent is not rendered  
obvious by the Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the  
Sonos Forums, Nourse, Rajapakse, or Millington, or any of the other secondary references

1 identified by Dr. Schonfeld for at least the same reasons discussed above in connection with  
2 Asserted Claim 1 of the '966 Patent.

3 1516. Moreover, it is my opinion that the additional limitations of Asserted Claim 2 of  
4 the '966 Patent are neither disclosed by the Bose Lifestyle 50 System nor rendered obvious by the  
5 Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the Sonos Forums,  
6 Nourse, Rajapakse, or Millington, or any of the other secondary references identified by Dr.  
7 Schonfeld for similar reasons to those discussed above in connection with limitations 1.10-1.11,  
8 which are directed to functionality for invoking the claimed "first zone scene." For example, as  
9 discussed above, a "shared source group" in the Bose Lifestyle 50 System is not a "zone scene,"  
10 and the Personal Music Center (and any other alleged "computing device" that Dr. Schonfeld may  
11 be relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
12 in the Bose Lifestyle 50 System did not have any functionality capability for receiving a "request  
13 to invoke" a "zone scene" or causing Lifestyle players to operate in accordance with a "zone scene"  
14 – let alone the functional capability for performing these operations with respect to two different,  
15 overlapping "zone scenes" – nor would it have been obvious to add this functionality to the Bose  
16 Lifestyle 50 System. And for similar reasons, the Personal Music Center (and any other alleged  
17 "computing device" that Dr. Schonfeld may be relying on such as the combination of the Personal  
18 Music Center and the Multi-Room Interface) in the Bose Lifestyle 50 System did not have any  
19 functionality capability for receiving a "request to invoke" a "second zone scene" or causing  
20 Lifestyle players to operate in accordance with a "second zone scene" at a time when a "first zone  
21 scene" having a common member is currently invoked, nor would it have been obvious to add this  
22 functionality to the Bose Lifestyle 50 System.

23 1517. Despite these clear deficiencies, Dr. Schonfeld nevertheless opines that Asserted  
24 Claim 2 of the '966 Patent rendered obvious by the Bose Lifestyle 50 System. *See* Schonfeld Op.  
25 Report at ¶ 1046. However, I find Dr. Schonfeld's opinion regarding the Bose Lifestyle 50 System  
26 and Asserted Claim 2 of the '966 Patent to be flawed for several reasons.

27 1518. As an initial matter, the entirety of Dr. Schonfeld's discussion regarding the Bose  
28 Lifestyle 50 System and Asserted Claim 2 of the '966 Patent is shown in the screenshot below



from Dr. Schonfeld's Opening Report:

**27. Claim 2 Is Obvious Based On Bose Lifestyle in view of General knowledge of a POSITA, the Sonos Forums, Nourse, Rajapakse or Millington.**

- (i) *Limitation 2.1 The computing device of claim 1, further comprising program instructions stored on the non-transitory computer-readable medium that, when executed by the one or more processors, cause the computing device to perform functions comprising:*
- (ii) *Limitation 2.2 while the first zone player is configured to coordinate with at least the second zone player to playback media in synchrony with at least the second zone player, receiving a fourth request to invoke the second zone scene; and*
- (iii) *Limitation 2.3 based on the fourth request, causing the first zone player to (a) cease to operate in accordance with the first predefined grouping of zone players such that the first zone player is no longer configured to coordinate with at least the second zone player to output media in synchrony with output of media by at least the second zone player and (b) begin to operate in accordance with the second predefined grouping of zone players such that the first zone player is configured to coordinate with at least the third zone player to output media in synchrony with output of media by at least the third zone player.*

1046. *See* '966 claim 1 *supra*. As discussed above, Bose Lifestyle and the identified obviousness combinations disclosed the system in claim 1. Those disclosures included the ability to receive a third request to "invoke" the first zone scene.

1519. This shows that Dr. Schonfeld is relying exclusively on his discussion of Asserted Claim 1 of his '966 Patent, but as explained above, Dr. Schonfeld has not set forth any analysis for Asserted Claim 1 of his '966 Patent; instead, Dr. Schonfeld relies on his prior discussion of the Bose Lifestyle 50 System in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed



1 to a “zone player”), the Asserted Claims of the ‘966 Patent use different claim language than  
2 Asserted Claim 1 of the ‘885 Patent, and Dr. Schonfeld fails to provide any further explanation as  
3 to how his prior discussion of the Bose Lifestyle 50 System in the context of the claim limitations  
4 of Asserted Claim 1 of the ‘885 Patent applies to the Asserted Claims of the ‘966 Patent. For these  
5 reasons, I disagree that the Dr. Schonfeld’s discussion of Asserted Claim 2 of the ‘966 Patent  
6 amounts to a detailed and complete statement of all opinions to be expressed and the basis and  
7 reasons therefor, which I understand to be the governing standard for expert reports, and that  
8 barebones discussion has prejudiced my ability to fully discern, assess, and respond to his opinions  
9 regarding Asserted Claim 2 of the ‘966 Patent.<sup>67</sup>

10 1520. With that said, as I have discussed above in Section XV.C.1 as well as in my ‘885  
11 Rebuttal Report regarding Asserted Claim 1 of the ‘885 Patent, Dr. Schonfeld’s analysis of the  
12 Bose Lifestyle 50 System in the context of Asserted Claim 1 of the ‘885 Patent suffers from a  
13 number of flaws, many of which are applicable to Asserted Claim 2 of the ‘966 Patent as well –  
14 including that his analysis is premised on both an incorrect interpretation of what is required to  
15 qualify as a “zone scene,” an incorrect interpretation of what it means to “invoke” a “zone scene,”  
16 and an inaccurate and misleading characterization of the Bose Lifestyle 50 System functionality  
17 and the evidence related thereto.

18 1521. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that the  
19 Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be  
20 relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
21 in the Bose Lifestyle 50 System did not have the functional capability required by Asserted Claim  
22 2 of the ‘966 Patent, nor would it have been obvious to add this functionality to the Bose Lifestyle  
23 50 System.

24 **3. Asserted Claim 4 is Not Rendered Obvious Based on the Bose Lifestyle**  
25 **50 System**

26 1522. Asserted Claim 4 of the ‘966 Patent depends from claim 3 of the ‘966 Patent, which

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27 <sup>67</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

1 in turn depends from Asserted Claim 1 of the '966 Patent. Claims 3 and 4 of the '966 Patent  
2 require as follows:

3 [3.0] The computing device of claim 1, [3.1] wherein causing storage of the first  
4 zone scene comprises causing storage of the first zone scene at a location other than  
5 the computing device, and [3.2] wherein causing storage of the second zone scene  
6 comprises causing storage of the second zone scene at the location other than the  
7 computing device.

8 [4.0] The computing device of claim 3, [4.1] wherein the location other than the  
9 computing device comprises a zone player of the first predefined grouping of zone  
10 players.

11 1523. Thus, Asserted Claim 4 of the '966 Patent requires the claimed "computing device"  
12 to cause the claimed "zone scenes" to be stored at a "zone player" within the "predefined grouping"  
13 of the "first zone scene," such as the "first zone player" that is included in both the first and second  
14 "zone scenes."

15 1524. In my opinion, Asserted Claim 4 of the '966 Patent is not rendered obvious based  
16 on the Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the Sonos  
17 Forums, Nourse, Rajapakse, or Millington, or any of the other secondary references identified by  
18 Dr. Schonfeld.

19 1525. Indeed, because Asserted Claim 4 of the '966 Patent depends from Asserted Claim  
20 1 of the '966 Patent (through claim 3), it is my opinion that Asserted Claim 4 of the '966 Patent is  
21 not rendered obvious by the Bose Lifestyle 50 System in view of the general knowledge of a  
22 POSITA, the Sonos Forums, Nourse, Rajapakse, or Millington, or any of the other secondary  
23 references identified by Dr. Schonfeld identified by Dr. Schonfeld for at least the same reasons  
24 discussed above in connection with Asserted Claim 1 of the '966 Patent.

25 1526. Moreover, it is my opinion that the additional limitations of Asserted Claim 4 of  
26 the '966 Patent are neither disclosed by the Bose Lifestyle 50 System nor rendered obvious by the  
27 Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the Sonos Forums,  
28 Nourse, Rajapakse, or Millington, or any of the other secondary references identified by Dr.  
Schonfeld for similar reasons to those discussed above in connection with limitations 1.6 and 1.8,  
which require the claimed "computing device" to have the functional capability to cause storage

1 of the “first zone scene” and the “second zone scene.” For example, as discussed above, a “shared  
2 source group” in the Bose Lifestyle 50 System is not a “zone scene,” and the Personal Music  
3 Center (and any other alleged “computing device” that Dr. Schonfeld may be relying on such as  
4 the combination of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle  
5 50 System did not have any functionality capability for causing storage of a “zone scene” – let  
6 alone the functional capability for causing storage of two different, overlapping “zone scenes” –  
7 nor would it have been obvious to add this functionality to the Bose Lifestyle 50 System. And for  
8 similar reasons, the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle  
9 50 System did not have any functionality capability for causing a “zone scene” to be stored at a  
10 Lifestyle player, nor would it have been obvious to add this functionality to the Bose Lifestyle 50  
11 System.

12 1527. Further even setting aside the fundamental differences between a “shared source  
13 group” of Lifestyle players and a “zone scene,” I have not seen any evidence that the Personal  
14 Music Center or any other device in the Bose Lifestyle 50 System “caus[ed] storage” of a “shared  
15 source group” on a Lifestyle player in the “shared source group.” To the contrary, as I explained  
16 above, the evidence I have reviewed shows the Multi-Room Interface of the Bose Lifestyle 50  
17 System was exclusively responsible for the “shared source group” functionality, and the Lifestyle  
18 players never changed into a different “mode” for group playback or even had any awareness of  
19 whether or not they were part of a “shared source group.” *See, e.g.*, BOSE\_SUB-0000001-55 at 6  
20 (“The Bose Multi-Room Interface, with four independent audio outputs that allow you to enjoy  
21 Bose sound throughout your home.”), 12 (illustrating a Bose Lifestyle 50 System configuration  
22 with a CD player and an Acoustimass module connected the Multi-Room Interface), 17  
23 (illustrating various audio sources connected to Multi-Room Interface via audio input cables), 19  
24 (“When batteries are first installed in the music center; it sets up a radio-frequency link with the  
25 closest multi-room interface.... If the music center continuously displays "NO RESPONSE," you  
26 need to try to establish its link with the multi-room interface again.”), 42 (Figure 47 showing  
27 “AUDIO OUTPUT” jacks for each room), 44-45 (explaining how to use ROOM and HOUSE  
28 buttons of the Personal Music Center to set up an audio source for one or more rooms connected

1 to the Multi-Room Interface), 45 (“To add a new music center to your system, follow the setup  
2 instructions on page 17. Be sure to install the batteries and turn it on for the first time close to the  
3 multi-room interface to allow the new music center to set up a radio frequency link with your  
4 system. If the multi-room interface is not plugged in or the music center is out of range, the display  
5 indicates NO RESPONSE.”). In view of this, it is my opinion that the Personal Music Center (and  
6 any other alleged “computing device” that Dr. Schonfeld may be relying on such as the  
7 combination of the Personal Music Center and the Multi-Room Interface) would not be configured  
8 to cause a Lifestyle player in a “shared source group” to store the “shared source group.”

9 1528. Despite these clear deficiencies, Dr. Schonfeld nevertheless opines that intervening  
10 claim 3 and Asserted Claim 4 of the '966 Patent are both rendered obvious by the Bose Lifestyle  
11 50 System. *See* Schonfeld Op. Report at ¶¶ 1047-1048. However, I find Dr. Schonfeld’s opinion  
12 regarding the Bose Lifestyle 50 System and claims 3-4 of the '966 Patent to be flawed for several  
13 reasons.

14 1529. As an initial matter, the entirety of Dr. Schonfeld’s discussion regarding the Bose  
15 Lifestyle 50 System and claims 3-4 of the '966 Patent is shown in the screenshots below from Dr.  
16 Schonfeld’s Opening Report:

17  
18 **28. Claim 3 is Obvious Based On Bose Lifestyle in view of General**  
19 **knowledge of a POSITA, the Sonos Forums, Nourse, Rajapakse or**  
20 **Millington.**

21 (i) *3. The computing device of claim 1, wherein causing storage of the*  
22 *first zone scene comprises causing storage of the first zone scene at*  
23 *a location other than the computing device, and wherein causing*  
24 *storage of the second zone scene comprises causing storage of the*  
25 *second zone scene at the location other than the computing device.*

26 1047. *See* '966 claim 1 *supra*.  
27  
28

**29. Claim 4 Is Obvious Based On Bose Lifestyle in view of General knowledge of a POSITA, the Sonos Forums, Nourse, Rajapakse or Millington.**

(i) *4. The computing device of claim 3, wherein the location other than the computing device comprises a zone player of the first predefined grouping of zone players.*

1048. *See '966 claim 3 supra.*

1530. This shows that Dr. Schonfeld is primarily relying on his discussion of Asserted Claim 1 of his '966 Patent, but as explained above, Dr. Schonfeld has not set forth any analysis for Asserted Claim 1 of his '966 Patent; instead, Dr. Schonfeld relies on his prior discussion of Sonos's 2005 system in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a "zone player"), the Asserted Claims of the '966 Patent use different claim language than Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion of the Bose Lifestyle 50 System in the context of the claim limitations of Asserted Claim 1 of the '885 Patent applies to the Asserted Claims of the '966 Patent. For these reasons, I disagree that the Dr. Schonfeld's discussion of Asserted Claim 4 of the '966 Patent amounts to a detailed and complete statement of all opinions to be expressed and the basis and reasons therefor, which I understand to be the governing standard for expert reports, and that barebones discussion has prejudiced my ability to fully discern, assess, and respond to his opinions regarding Asserted Claim 4 of the '966 Patent.<sup>68</sup>

1531. With that said, as I have discussed above in Section XV.C.1 as well as in my '885 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's analysis of the

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<sup>68</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies in his Opening Report, I expressly reserve my right to respond.

1 Bose Lifestyle 50 System in the context of Asserted Claim 1 of the '885 Patent suffers from a  
2 number of flaws, many of which are applicable to Asserted Claim 4 of the '966 Patent as well –  
3 including that his analysis is premised on both an incorrect interpretation of what is required to  
4 qualify as a “zone scene” and an inaccurate and misleading characterization of the Bose Lifestyle  
5 50 System functionality and the evidence related thereto.

6 1532. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that the  
7 Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be  
8 relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
9 in the Bose Lifestyle 50 System did not have the functional capability required by Asserted Claim  
10 4 of the '966 Patent, nor would it have been obvious to add this functionality to the Bose Lifestyle  
11 50 System.

12 **4. Asserted Claim 6 is Not Rendered Obvious Based on the Bose Lifestyle**  
13 **50 System**

14 1533. Asserted Claim 6 of the '966 Patent depends from Asserted Claim 1 of the '966  
15 Patent and requires the following:

16 [6.0] The computing device of claim 1, [6.1] wherein the first predefined grouping of  
17 zone players does not include the third zone player, and [6.2] wherein the second  
predefined grouping of zone players does not include the second zone player.

18 1534. Thus, Asserted Claim 6 of the '966 Patent requires the claimed “computing device”  
19 to be programmed with functionality for creating two overlapping “zone scenes” where each “zone  
20 scene” includes at least one “zone player” that is not included in the other “zone scene.”

21 1535. In my opinion, Asserted Claim 6 of the '966 Patent is not rendered obvious based  
22 on the Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the Sonos  
23 Forums, Nourse, Rajapakse, or Millington, or any of the other secondary references identified by  
24 Dr. Schonfeld.

25 1536. Indeed, because Asserted Claim 6 of the '966 Patent depends from Asserted Claim  
26 1 of the '966 Patent, it is my opinion that Asserted Claim 6 of the '966 Patent is not rendered  
27 obvious by the Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the  
28 Sonos Forums, Nourse, Rajapakse, or Millington, or any of the other secondary references

1 identified by Dr. Schonfeld for at least the same reasons discussed above in connection with  
2 Asserted Claim 1 of the '966 Patent.

3 1537. Moreover, it is my opinion that the additional limitations of Asserted Claim 6 of  
4 the '966 Patent are neither disclosed by the Bose Lifestyle 50 System nor rendered obvious by the  
5 Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the Sonos Forums,  
6 Nourse, Rajapakse, or Millington, or any of the other secondary references identified by Dr.  
7 Schonfeld. For example, as discussed above, a “shared source group” in the Bose Lifestyle 50  
8 System is not a “zone scene,” and the Personal Music Center (and any other alleged “computing  
9 device” that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center  
10 and the Multi-Room Interface) in the Bose Lifestyle 50 System did not have any functionality  
11 capability for creating a “zone scene” – let alone the functional capability for creating two  
12 different, overlapping “zone scenes” – nor would it have been obvious to add this functionality to  
13 Sonos’s 2005 system. And for similar reasons, the Personal Music Center (and any other alleged  
14 “computing device” that Dr. Schonfeld may be relying on such as the combination of the Personal  
15 Music Center and the Multi-Room Interface) in the Bose Lifestyle 50 System did not have any  
16 functionality capability for creating two overlapping “zone scenes” where each “zone scene”  
17 includes at least one “zone player” that is not included in the other “zone scene,” nor would it have  
18 been obvious to add this functionality to the Bose Lifestyle 50 System.

19 1538. Despite these clear deficiencies, Dr. Schonfeld nevertheless opines that Asserted  
20 Claim 6 of the '966 Patent rendered obvious by the Bose Lifestyle 50 System. *See* Schonfeld Op.  
21 Report at ¶ 1049. However, I find Dr. Schonfeld’s opinion regarding the Bose Lifestyle 50 System  
22 and Asserted Claim 6 of the '966 Patent to be flawed for several reasons.

23 1539. As an initial matter, the entirety of Dr. Schonfeld’s discussion regarding the Bose  
24 Lifestyle 50 System and Asserted Claim 6 of the '966 Patent is shown in the screenshot below  
25 from Dr. Schonfeld’s Opening Report:  
26  
27  
28



**30. Claim 6 Is Obvious Based On Bose Lifestyle in view of General knowledge of a POSITA, the Sonos Forums, Nourse, Rajapakse or Millington.**

- (i) *6. The computing device of claim 1, wherein the first predefined grouping of zone players does not include the third zone player; and wherein the second predefined grouping of zone players does not include the second zone player.*

1049. *See '966 claim 1 supra.* As discussed *supra*, claim 1 is disclosed or rendered obvious at least through the disclosure of non-overlapping zone scenes in the prior art.

1540. This shows that Dr. Schonfeld is relying exclusively on his discussion of Asserted Claim 1 of his '966 Patent, but as explained above, Dr. Schonfeld has not set forth any analysis for Asserted Claim 1 of his '966 Patent; instead, Dr. Schonfeld relies on his prior discussion of the Bose Lifestyle 50 System in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a "zone player"), the Asserted Claims of the '966 Patent use different claim language than Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion of the Bose Lifestyle 50 System in the context of the claim limitations of Asserted Claim 1 of the '885 Patent applies to the Asserted Claims of the '966 Patent. For these reasons, I disagree that the Dr. Schonfeld's discussion of Asserted Claim 6 of the '966 Patent amounts to a detailed and complete statement of all opinions to be expressed and the basis and reasons therefor, which I understand to be the governing standard for expert reports, and that barebones discussion has prejudiced my ability to fully discern, assess, and respond to his opinions regarding Asserted Claim 6 of the '966 Patent.<sup>69</sup>

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<sup>69</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies in his Opening Report, I expressly reserve my right to respond.

1541. With that said, as I have discussed above in Section XV.C.1 as well as in my '885 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's analysis of the Bose Lifestyle 50 System in the context of Asserted Claim 1 of the '885 Patent suffers from a number of flaws, many of which are applicable to Asserted Claim 6 of the '966 Patent as well – including that his analysis is premised on both an incorrect interpretation of what is required to qualify as a “zone scene” and an inaccurate and misleading characterization of the Bose Lifestyle 50 System functionality and the evidence related thereto.

1542. Thus, nothing in Dr. Schonfeld's Opening Report alters my opinion that the Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle 50 System did not have the functional capability required by Asserted Claim 6 of the '966 Patent, nor would it have been obvious to add this functionality to the Bose Lifestyle 50 System.

**5. Asserted Claim 8 is Not Rendered Obvious Based on the Bose Lifestyle 50 System**

1543. Asserted Claim 8 of the '966 Patent depends from Asserted Claim 1 of the '966 Patent and requires the following:

[8.0] The computing device of claim 1, [8.1] wherein receiving the first request comprises receiving a first set of one or more inputs via a user interface of the computing device, [8.2] wherein receiving the second request comprises receiving a second set of one or more inputs via the user interface, and [8.3] wherein receiving the third request comprises receiving a third set of one or more inputs via the user interface.

1544. Thus, Asserted Claim 8 of the '966 Patent requires the claimed “computing device” to be programmed with the functional capability to receive “requests” for creating and invoking “zone scenes” that take the form of “one or more inputs” received “via a user interface.”

1545. In my opinion, Asserted Claim 8 of the '966 Patent is not rendered obvious based on the Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the Sonos Forums, Nourse, Rajapakse, or Millington, or any of the other secondary references identified by Dr. Schonfeld.

1           1546. Indeed, because Asserted Claim 8 of the '966 Patent depends from Asserted Claim  
2   1 of the '966 Patent, it is my opinion that Asserted Claim 8 of the '966 Patent is not rendered  
3   obvious by the Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the  
4   Sonos Forums, Nourse, Rajapakse, or Millington, or any of the other secondary references  
5   identified by Dr. Schonfeld for at least the same reasons discussed above in connection with  
6   Asserted Claim 1 of the '966 Patent.

7           1547. Moreover, it is my opinion that the additional limitations of Asserted Claim 8 of  
8   the '966 Patent are neither disclosed by the Bose Lifestyle 50 System nor rendered obvious by the  
9   Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the Sonos Forums,  
10   Nourse, Rajapakse, or Millington, or any of the other secondary references identified by Dr.  
11   Schonfeld for similar reasons to those discussed above in connection with Asserted Claim 1 of the  
12   '966 Patent. For example, as discussed above, a “shared source group” in the Bose Lifestyle 50  
13   System is not a “zone scene,” and the Personal Music Center (and any other alleged “computing  
14   device” that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center  
15   and the Multi-Room Interface) in the Bose Lifestyle 50 System did not have any functionality  
16   capability for receiving requests to create or invoke a “zone scene” – let alone the functional  
17   capability for receiving requests to create two different, overlapping “zone scenes” and then  
18   receiving a request to invoke one of the “zone scenes” – nor would it have been obvious to add  
19   this functionality to the Bose Lifestyle 50 System. And for similar reasons, the controllers in the  
20   Bose Lifestyle 50 System did not have any functionality capability for receiving requests to create  
21   or invoke “zone scenes” that take the form of “one or more inputs” received “via a user interface,”  
22   nor would it have been obvious to add this functionality to the Bose Lifestyle 50 System.

23           1548. Despite these clear deficiencies, Dr. Schonfeld nevertheless opines that Asserted  
24   Claim 8 of the '966 Patent rendered obvious by the Bose Lifestyle 50 System. *See* Schonfeld Op.  
25   Report at ¶ 1050. However, I find Dr. Schonfeld’s opinion regarding the Bose Lifestyle 50 System  
26   and Asserted Claim 8 of the '966 Patent to be flawed for several reasons.

27           1549. As an initial matter, the entirety of Dr. Schonfeld’s discussion regarding the Bose  
28   Lifestyle 50 System and Asserted Claim 8 of the '966 Patent is shown in the screenshot below

from Dr. Schonfeld's Opening Report:

**31. Claim 8 Is Obvious Based On Bose Lifestyle in view of General knowledge of a POSITA, the Sonos Forums, Nourse, Rajapakse or Millington.**

- (i) *8. The computing device of claim 1, wherein receiving the first request comprises receiving a first set of one or more inputs via a user interface of the computing device, wherein receiving the second request comprises receiving a second set of one or more inputs via the user interface, and wherein receiving the third request comprises receiving a third set of one or more inputs via the user interface.*

1050. *See '966 claim 1 supra.*

1550. This shows that Dr. Schonfeld is relying exclusively on his discussion of Asserted Claim 1 of his '966 Patent, but as explained above, Dr. Schonfeld has not set forth any analysis for Asserted Claim 1 of his '966 Patent; instead, Dr. Schonfeld relies on his prior discussion of the Bose Lifestyle 50 System in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a "zone player"), the Asserted Claims of the '966 Patent use different claim language than Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion of the Bose Lifestyle 50 System in the context of the claim limitations of Asserted Claim 1 of the '885 Patent applies to the Asserted Claims of the '966 Patent. For these reasons, I disagree that the Dr. Schonfeld's discussion of Asserted Claim 8 of the '966 Patent amounts to a detailed and complete statement of all opinions to be expressed and the basis and reasons therefor, which I understand to be the governing standard for expert reports, and that barebones discussion has prejudiced my ability to fully discern, assess, and respond to his opinions

1 regarding Asserted Claim 8 of the '966 Patent.<sup>70</sup>

2 1551. With that said, as I have discussed above in Section XV.C.1 as well as in my '885  
3 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's analysis of the  
4 Bose Lifestyle 50 System in the context of Asserted Claim 1 of the '885 Patent suffers from a  
5 number of flaws, many of which are applicable to Asserted Claim 8 of the '966 Patent as well –  
6 including that his analysis is premised on both an incorrect interpretation of what is required to  
7 qualify as a “zone scene” and an inaccurate and misleading characterization of the Bose Lifestyle  
8 50 System functionality and the evidence related thereto.

9 1552. Thus, nothing in Dr. Schonfeld's Opening Report alters my opinion that the  
10 Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be  
11 relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
12 in the Bose Lifestyle 50 System did not have the functional capability required by Asserted Claim  
13 8 of the '966 Patent, nor would it have been obvious to add this functionality to the Bose Lifestyle  
14 50 System.

15 **6. Asserted Claim 9 is Not Rendered Obvious Based on the Bose Lifestyle**  
16 **50 System**

17 1553. For the same reasons already discussed above in connection with Asserted Claim 1  
18 of the '966 Patent, in my opinion, Asserted Claim 9 of the '966 Patent is not rendered obvious by  
19 the Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the Sonos Forums,  
20 Nourse, Rajapakse, or Millington, or any of the other secondary references identified by Dr.  
21 Schonfeld.

22 **7. Asserted Claim 10 is Not Rendered Obvious Based on the Bose Lifestyle**  
23 **50 System**

24 1554. For the same reasons already discussed above in connection with Asserted Claim 2  
25 of the '966 Patent, in my opinion, Asserted Claim 10 of the '966 Patent is not rendered obvious  
26 by the Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the Sonos

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27 <sup>70</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

Forums, Nourse, Rajapakse, or Millington, or any of the other secondary references identified by Dr. Schonfeld.

**8. Asserted Claim 12 is Not Rendered Obvious Based on the Bose Lifestyle 50 System**

1555. For the same reasons already discussed above in connection with Asserted Claim 4 of the '966 Patent, in my opinion, Asserted Claim 12 of the '966 Patent is not rendered obvious by the Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the Sonos Forums, Nourse, Rajapakse, or Millington, or any of the other secondary references identified by Dr. Schonfeld.

**9. Asserted Claim 14 is Not Rendered Obvious Based on the Bose Lifestyle 50 System**

1556. For the same reasons already discussed above in connection with Asserted Claim 6 of the '966 Patent, in my opinion, Asserted Claim 14 of the '966 Patent is not rendered obvious by the Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the Sonos Forums, Nourse, Rajapakse, or Millington, or any of the other secondary references identified by Dr. Schonfeld.

**10. Asserted Claim 16 is Not Rendered Obvious Based on the Bose Lifestyle 50 System**

1557. For the same reasons already discussed above in connection with Asserted Claim 8 of the '966 Patent, in my opinion, Asserted Claim 16 of the '966 Patent is not rendered obvious by the Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the Sonos Forums, Nourse, Rajapakse, or Millington, or any of the other secondary references identified by Dr. Schonfeld.

**D. Obviousness Type Double Patenting Over U.S. Patent No. 9,141,645**

1558. In his Opening Report, Dr. Schonfeld opines that each Asserted Claim of the '966 Patent is obvious based on obviousness-type double patenting over claim 1 of Sonos's '645 patent. I disagree with Dr. Schonfeld's opinion, which is flawed for the many reasons I have outlined below.

1                   **1. Dr. Schonfeld Fails to Analyze the Claims of the '966 Patent**

2                   1559. As an initial matter, Dr. Schonfeld fails to perform a limitation-by-limitation  
3 analysis of the Asserted Claims of the '966 Patent as compared to claim 1 of Sonos's '645 patent.  
4 *See* Schonfeld Op. Report at ¶¶ 1066-1098. Instead, Dr. Schonfeld only performs a limitation-by-  
5 limitation analysis of Asserted Claim 1 of the '885 Patent as compared to claim 1 of Sonos's '645  
6 patent, and then for most limitations of the '966 Patent, merely refers back to that analysis of  
7 Asserted Claim 1 of the '885 Patent. *Id.* However, the Asserted Claims of the '966 Patent are  
8 directed to a different type of device than Asserted Claim 1 of the '885 Patent (a “computing  
9 device” configured to “serv[e] as a controller” as opposed to a “zone player”), the limitations of  
10 the Asserted Claims of the '966 Patent use different claim language than the limitations of Asserted  
11 Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how  
12 his prior discussion of Sonos's '645 patent in the context of the claim limitations of Asserted Claim  
13 1 of the '885 Patent applies to the Asserted Claims of the '966 Patent. For these reasons, I disagree  
14 that Dr. Schonfeld's barebones discussion of the Asserted Claims of the '966 Patent amounts to a  
15 detailed and complete statement of all opinions to be expressed and the basis and reasons therefor,  
16 which I understand to be the governing standard for expert reports, and that barebones discussion  
17 has prejudiced my ability to fully discern, assess, and respond to his opinions regarding the  
18 Asserted Claims of the '966 Patent.<sup>71</sup>

19                   **2. Dr. Schonfeld's Analysis Improperly Relies on the Specification of the**  
20                   **'645 Patent Rather than the Claims**

21                   1560. While performing his obviousness analysis for Asserted Claim 1 of the '885 Patent  
22 as compared to claim 1 of Sonos's '645 patent, Dr. Schonfeld repeatedly relies on the specification  
23 of Sonos's '645 patent, which I understand to be legally improper. *See, e.g.,* Schonfeld Op. Report  
24 at ¶¶ 810-824, 829, 831-832, 841, 847, 850, 854. Specifically, for obviousness-type double  
25 patenting, I understand the relevant inquiry to be whether the claims of one patent would have  
26 been obvious over the *claims* of some other patent – not the *specification* of that other patent.

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27 <sup>71</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.



1 Thus, it was improper for Dr. Schonfeld to rely on the specification of Sonos's '645 patent to  
2 support his opinions regarding obviousness-type double patenting.

3 1561. In his Opening Report, Dr. Schonfeld tries to justify his reliance on the specification  
4 of Sonos's '645 patent as follows:

5 I do not use the disclosure of the '645 patent in my obviousness analysis of the  
6 asserted patents. Rather, I only use the claims of the '645 patent. However, I do use  
7 the disclosure of the '645 patent to understand the scope and meaning of the claims,  
8 and I do use claimed embodiments, as described in the disclosure, in my analysis. I  
do not use unclaimed embodiments that are described in the disclosure in my  
obviousness analysis.

9 Schonfeld Op. Report at ¶ 824. I disagree – Dr. Schonfeld's analysis of the '645 patent as  
10 compared to Asserted Claim 1 of the '885 Patent clearly demonstrates that not only is he relying  
11 on the specification of the '645 patent in his analysis, but he is indeed relying on *unclaimed*  
12 *embodiments* from the specification of the '645 patent. *See, e.g.*, Schonfeld Op. Report at ¶¶ 810-  
13 824, 829, 831-832, 841, 847, 850, 854. To place these flaws with Dr. Schonfeld's analysis into  
14 their proper context, it is helpful to provide a brief summary of the priority chain and prosecution  
15 history for Sonos's '645 Patent.

16 1562. Sonos's '645 patent was filed on September 22, 2015, and includes the following  
17 priority chain:

18 This application is a continuation of and claims priority under 35 USC §120 of [1]  
19 U.S. application Ser. No. 13/619,237, filed Sep. 14, 2012, ... which is a continuation  
20 of [2] U.S. application Ser. No. 12/035,112, filed Feb. 21, 2008, ... now U.S. Pat.  
21 No. 8,290,603 ["Sonos's '603 Patent"] which is a continuation-in-part of [3] U.S.  
22 application Ser. No. 10/861,653, filed Jun. 5, 2004, ... now U.S. Pat. No. 7,571,014  
23 ["Sonos's '014 Patent"] which is a continuation-in-part of [4] U.S. application Ser.  
No. 10/816,217, filed Apr. 1, 2004, ... now U.S. Pat. No. 8,234,395 ["Sonos's '395  
Patent"] which is a non-provisional application claiming priority under 35 USC  
§119 to [5] Provisional Patent Application Ser. No. 60/490,768, filed on Jul. 28,  
2003 ....

24 *See* '645 patent at 1:8-29.

25 1563. Thus, while Sonos's '645 patent has a priority chain that claims priority back to a  
26 provisional application filed on July 28, 2003 and a first non-provisional application filed on April  
27 1, 2004 (which matured into Sonos's '395 Patent), there were two intervening continuation-in-part  
28 applications in the priority chain of Sonos's '645 patent that added new subject matter to the

1 original disclosure – a first continuation-in-part application filed on June 5, 2004 (which matured  
2 into Sonos '014 Patent) and a second continuation-in-part application filed on February 21, 2008  
3 (which matured into Sonos's '603 Patent). To help illustrate the portions of the '645 specification  
4 that were added to the disclosure as part of the continuation-in-part application filed on February  
5 21, 2008, I have attached as **Exhibit 4** a redline comparison of the specification of Sonos's '645  
6 patent and the specification of Sonos's '014 patent (which contains the disclosure as it existed  
7 prior to the continuation-in-part application filed on February 21, 2008).

8 1564. Based on my review of the claims of Sonos's '645 Patent as compared to '645  
9 specification and its priority applications, it is my opinion that the claims cover embodiments  
10 disclosed within the portion of the '645 specification that originated from Sonos's '395 Patent filed  
11 on April 1, 2004 and/or Sonos's '014 Patent filed on June 5, 2004, rather than the portion of the  
12 '645 specification that was added on Feb. 21, 2008 when Sonos's '603 Patent was filed. This  
13 opinion is supported by the prosecution of Sonos's '645 patent. There, the Examiner found that  
14 (i) pending claims 21, 24-25, 28, 31-32, 35, and 38 (issued claims 1, 4-5, 7, 10-11, 13, and 16)  
15 were entitled to a priority date of April 1, 2004, which means that such claims covered  
16 embodiments disclosed within the portion of the '645 specification that originated from Sonos's  
17 '395 Patent filed on April 1, 2004, and (ii) pending claims 22-23, 26, 29-30, 33, 36-37, and 39  
18 (issued claims 2-3, 6, 8-9, 12, 14-15, and 17) were entitled to a priority date of June 5, 2004, which  
19 means that such claims covered embodiments disclosed within the portion of the '645 specification  
20 that originated from Sonos's '014 Patent filed on June 4, 2004. *See* June 5, 2014 Office Action at  
21 2-3; *see also* December 18, 2013 Office Action at 2-3.

22 1565. However, in his analysis of Sonos's '645 patent, Dr. Schonfeld primarily relied on  
23 the portion of the '645 specification that was added on Feb. 21, 2008 when Sonos's '603 Patent  
24 filed. This confirms that Dr. Schonfeld has improperly relied on unclaimed embodiments from  
25 the '645 specification to support his opinions regarding obviousness-type double patenting.<sup>72</sup>

26 \_\_\_\_\_  
27 <sup>72</sup> Notably, because the portions of the '645 Patent specification that primarily form the basis for  
28 Dr. Schonfeld's opinions were not added until Feb. 2008 when Sonos's '603 Patent filed, those  
portions of the '645 Patent specification do not qualify as prior art to the '885 and '966 Patents.  
This is presumably why Dr. Schonfeld's theory is premised on obviousness-type double patenting

1 Additionally, the foregoing prosecution history also confirms that Dr. Schonfeld's interpretation  
2 of claim 1 of Sonos's '645 patent, which relies on disclosure that was added on Feb. 21, 2008  
3 when Sonos's '603 Patent filed, is incorrect.

4 **3. Claim 1 of the '645 Patent Fails to Disclose or Render Obvious the**  
5 **Asserted Claims of the '966 Patent**

6 1566. In my opinion, claim 1 of the Sonos's '645 patent fails to disclose or render obvious  
7 the following aspects of the Asserted Claims of the '966 Patent:

8 *Claims 1 and 9*

- 9
- 10 • A "zone scene" comprising a "predefined grouping of zone players . . . that are to  
11 be configured for synchronous playback of media when the . . . zone scene is  
12 invoked";
  - 13 • [1.4] / [1.5] and [9.1] / [9.2] "while serving as a controller for a networked media  
14 playback system comprising a first zone player and at least two other zone players,  
15 wherein the first zone player is operating in a standalone mode in which the first  
16 zone player is configured to play back media individually[,] "receiving a first  
17 request to create a first zone scene comprising a first predefined grouping of zone  
18 players including at least the first zone player and a second zone player that are to  
19 be configured for synchronous playback of media when the first zone scene is  
20 invoked";
  - 21 • [1.4] / [1.6] and [9.1] / [9.3] "while serving as a controller for a networked media  
22 playback system comprising a first zone player and at least two other zone players,  
23 wherein the first zone player is operating in a standalone mode in which the first  
24 zone player is configured to play back media individually[,] "based on the first  
25 request, i) causing creation of the first zone scene, ii) causing an indication of the  
26 first zone scene to be transmitted to the first zone player, and iii) causing storage of  
27 the first zone scene";
  - 28 • [1.4] / [1.7] and [9.1] / [9.4] "while serving as a controller for a networked media  
29 playback system comprising a first zone player and at least two other zone players,  
30 wherein the first zone player is operating in a standalone mode in which the first  
31 zone player is configured to play back media individually[,] "receiving a second  
32 request to create a second zone scene comprising a second predefined grouping of  
33 zone players including at least the first zone player and a third zone player that are  
34 to be configured for synchronous playback of media when the first zone scene is  
35 invoked";

36  
37 rather than prior art obviousness, but this is also why Dr. Schonfeld is not permitted to rely on the  
38 '645 Patent specification as part of the obviousness-type double patenting analysis, because  
39 otherwise this would allow Dr. Schonfeld to circumvent the rules regarding qualification of prior  
40 art.

- 1 • [1.4] / [1.8] and [9.1] / [9.5] “while serving as a controller for a networked media  
2 playback system comprising a first zone player and at least two other zone players,  
3 wherein the first zone player is operating in a standalone mode in which the first  
4 zone player is configured to play back media individually[,]” “based on the second  
5 request, i) causing creation of the second zone scene, ii) causing an indication of  
6 the second zone scene to be transmitted to the first zone player, and iii) causing  
7 storage of the second zone scene”;
- 8 • [1.4] / [1.9] and [9.1] / [9.6] “while serving as a controller for a networked media  
9 playback system comprising a first zone player and at least two other zone players,  
10 wherein the first zone player is operating in a standalone mode in which the first  
11 zone player is configured to play back media individually[,]” “displaying a  
12 representation of the first zone scene and a representation of the second zone  
13 scene”;
- 14 • [1.4] / [1.10] and [9.1] / [9.7] “while serving as a controller for a networked media  
15 playback system comprising a first zone player and at least two other zone players,  
16 wherein the first zone player is operating in a standalone mode in which the first  
17 zone player is configured to play back media individually[,]” and “while displaying  
18 the representation of the first zone scene and the representation of the second zone  
19 scene, receiving a third request to invoke the first zone scene”; and
- 20 • [1.11] and [9.8] “based on the third request, causing the first zone player to  
21 transition from operating in the standalone mode to operating in accordance with  
22 the first predefined grouping of zone players such that the first zone player is  
23 configured to coordinate with at least the second zone player to output media in  
24 synchrony with output of media by at least the second zone player”.

25 *Claims 2 and 10 (depending from 1 and 9)*

- 26 • [2.0] “The computing device of claim 1, further comprising program instructions  
27 stored on the non-transitory computer-readable medium that, when executed by the  
28 one or more processors, cause the computing device to perform functions  
comprising”;
- [10.0] “The non-transitory computer-readable medium of claim 9, wherein the non-  
transitory computer-readable medium is also provisioned with program instructions  
stored on the non-transitory computer-readable medium that, when executed by the  
one or more processors, cause the computing device to perform functions  
comprising”;
- [2.1] and [10.1] “while the first zone player is configured to coordinate with at least  
the second zone player to play back media in synchrony with at least the second  
zone player, receiving a fourth request to invoke the second zone scene”; and
- [2.2] and [10.2] “while the first zone player is configured to coordinate with at least  
the second zone player to play back media in synchrony with at least the second  
zone player, receiving a fourth request to invoke the second zone scene”.

*Claims 3 and 11 (depending from 1 and 9)*

- [3.0] “The computing device of claim 1”;
- [11.0] “The non-transitory computer-readable medium of claim 9”;
- [3.1] and [11.1] “wherein causing storage of the first zone scene comprises causing storage of the first zone scene at a location other than the computing device”; and
- [3.2] and [11.2] “wherein causing storage of the second zone scene comprises causing storage of the second zone scene at the location other than the computing device”.

*Claims 4 and 12 (depending from 3 and 11)*

- [4.0] “The computing device of claim 3”;
- [12.0] “The non-transitory computer-readable medium of claim 11”;
- [4.1] and [12.1] “wherein the location other than the computing device comprises a zone player of the first predefined grouping of zone players”.

*Claims 6 and 14 (depending from 1 and 9)*

- [6.0] “The computing device of claim 1”;
- [14.0] “The non-transitory computer-readable medium of claim 9”;
- [6.1] and [14.1] “wherein the first predefined grouping of zone players does not include the third zone player”; and
- [6.2] and [14.2] “wherein the second predefined grouping of zone players does not include the second zone player”.

*Claims 8 and 16 (depending from 1 and 9)*

- [8.0] “The computing device of claim 1”;
- [16.0] “The non-transitory computer-readable medium of claim 9”;
- [8.1] and [16.1] “wherein receiving the first request comprises receiving a first set of one or more inputs via a user interface of the computing device”;
- [8.2] and [16.2] “wherein receiving the second request comprises receiving a second set of one or more inputs via the user interface”; and
- [8.3] and [16.3] “wherein receiving the third request comprises receiving a third set of one or more inputs via the user interface”.

1567. All of the above-listed aspects of the Asserted Claims of the '966 Patent are related to Sonos's "zone scene" technology. However, like Sonos's 2005 system discussed above in Section XV.A.1.i, claim 1 of Sonos's '645 patent describes functionality related to a Sonos ad-hoc "zone group," which is not a "zone scene" for all the reasons explained above. Again, a "zone scene" requires a user-customized, pre-saved group of "zone players" that is able to exist in an inactive state while remaining available for selection by a user so that it can later be invoked on demand for synchronous playback. In contrast, an ad-hoc "zone group" is automatically invoked at the time of creation and then only remains in existence for the temporary period of time during which it is activated, and once deactivated, the "zone group" would cease to exist. Because claim 1 of Sonos's '645 patent are directed to the Sonos ad-hoc "zone group" functionality that was utilized by Sonos's 2005 system, claim 1 of Sonos's '645 patent fails to disclose or render obvious the "zone scene" technology of the Asserted Claims of the '966 Patent for the same reasons that Sonos's 2005 system fails to disclose or render obvious the "zone scene" technology of the Asserted Claims of the '966 Patent. Thus, I incorporate my discussion of Sonos's 2005 system here, including my discussion of why the Asserted Claims of the '966 Patent are not rendered obvious based on Sonos's 2005 system in view of the "general knowledge of a POSITA."

1568. My opinion that claim 1 of Sonos's '645 patent describes functionality related to a Sonos's ad-hoc "zone group" – not a "zone scene" as recited by the Asserted Claims of the '966 Patent – is confirmed by the claim language, specification, and the prosecution history.

1569. Claim 1 of Sonos's '645 patent is reproduced below:

1. A multimedia controller including a processor, the controller configured to:  
receive, at the controller via a packet network, a zone group configuration;  
display, via a user interface, a plurality of zones, each zone containing at least one zone player to playback multimedia content from a multimedia source;  
receive, via the user interface, a first user input, the first user input selecting a first zone of the plurality of zones and, wherein the first user input instructs the first zone of the plurality of zones to play a first multimedia content;  
receive, via the user interface, a second user input, the second user input identifying at least one additional zone of the plurality of zones to be grouped with the first zone into a zone group, such that the zone group will synchronously play the first multimedia content currently being played by the first zone;



1 transmit, to a zone player of the zone group via a packet network, a modified zone group  
2 configuration, wherein the modified zone group configuration causes the zone player of  
the zone group to configure the zones in the zone group to synchronize playback of the  
first multimedia content currently being played by the first zone; and

3 display, on the user interface, an indication of which of the plurality of zones are part of  
4 the zone group.

5 1570. As shown above, unlike the Asserted Claims of the '966 Patent, which recite first  
6 and second "zone scenes," claim 1 of Sonos's '645 patent recites a single "zone group."

7 1571. Moreover, as described in claim 1 of Sonos's '645 patent, the "zone group" is  
8 automatically invoked at the time of creation when the user "identif[ies]" and "select[s]" the  
9 "zones" to be included in the "zone group" and the "multimedia controller" transmits a "modified  
10 zone group configuration" to a "zone player of the zone group," which "causes the zone player of  
11 the zone group to configure the zones in the zone group to synchronize playback of the first  
12 multimedia content currently being played by the first zone." This claimed functionality for  
13 forming a "zone group" corresponds to the disclosure at column 8, lines 46-61 of Sonos's '645  
14 patent where a user selects a particular set of "zone players" to group together in an ad-hoc manner,  
15 one-by-one, when the user wishes to listen to audio across the set of "zone players," which would  
16 then create a temporary, ad-hoc group. And like the '966 Patent, Sonos's '645 patent expressly  
17 distinguishes this ad-hoc grouping functionality from a "zone scene," which comprises a  
18 "predefined," "saved" group of "zone players" that can later be invoked on demand for  
19 synchronous playback. *See, e.g.*, Sonos's '645 at 8:61-9:42. In other words, while Sonos's '645  
20 patent does disclose functionality related to an ad-hoc "zone group" as well as functionality related  
21 to a "zone scene," claim 1 of Sonos's '645 only claims an ad-hoc "zone group."

22 1572. Further, unlike the Asserted Claims of the '966 Patent, claim 1 of Sonos's '645  
23 patent does not describe the claimed "zone group" as having any of the "zone scene" characteristics  
24 that I discussed above. For example, claim 1 of Sonos's '645 patent does not describe the claimed  
25 "zone group" as being able to exist in an inactive state while remaining available for selection by  
26 a user so that it can later be invoked on demand for synchronous playback. As another example,  
27 claim 1 of Sonos's '645 patent does not describe the claimed "zone group" as being able to exist  
28 in an inactive state after creation such that a user can still use a "zone player" in the "zone group"



1 for individual audio playback (or for playback as part of a different group) without having to  
2 remove the “zone player” from the “zone group.” As yet another example, claim 1 of Sonos’s  
3 ’645 patent does not describe two overlapping “zone groups” that exist at the same time. As a  
4 further example, claim 1 of Sonos’s ’645 patent does not describe the claimed “zone group” as  
5 being persistent such that the “zone group” is not only able to exist prior to being activated, but  
6 also remains in existence after a user chooses to uninvoke the previously-invoked “zone group”  
7 and thereby deactivate the group.

8 1573. In my opinion, the above-described claim language and the disclosure in the  
9 specification of Sonos’s ’645 patent confirms that claim 1 of Sonos’s ’645 patent is directed to  
10 Sonos’s ad-hoc “zone group” technology – not the “zone scene” technology of the Asserted Claims  
11 of the ’966 Patent.

12 1574. Turning to the prosecution history of Sonos’s ’645 patent, as noted above, there  
13 were two intervening continuation-in-part applications in the priority chain of Sonos’s ’645 patent  
14 that added new subject matter to the original disclosure – a first continuation-in-part application  
15 filed on June 5, 2004 (which matured into Sonos’s ’014 Patent) and a second continuation-in-part  
16 application filed on February 21, 2008 (which matured into Sonos’s ’603 Patent). Based on my  
17 review of these continuation-in-part applications, it appears that the relevant disclosure related to  
18 Sonos’s “zone scene” technology, including all references to “zone scene,” “scene,” and “theme,”  
19 was added when the second continuation-in-part application was filed on February 21, 2008. *See*  
20 **Exhibit 4.**

21 1575. Then, on May 31, 2013, Sonos filed the continuation application that led to Sonos’s  
22 ’645 patent, which included original claims 1-20. May 31, 2013 Preliminary Amendment at p. 4-  
23 8. These original claims 1-20 appear to have been a copy of the original claims from the second  
24 continuation-in-part application filed on February 21, 2008 (which matured into Sonos’s ’603  
25 Patent) and were directed to certain aspects of Sonos’s “zone scene” technology that were added  
26 to the specification as part of the second continuation-in-part application filed on February 21,  
27 2008. For example, as shown in the image below, original claim 1 recited a method for grouping  
28 “players” using a “theme” that could be “activated at anytime or a specific time so that the players

1 react in a synchronized manner”:

### 2 Claims

3  
4 I claim:

- 5 1. A method for groupings in a multi-zone media system, the method comprising:
- 6 providing a user interface to allow a user to determine which players in the system to
- 7 be associated with a theme representing a group, the user interface showing all
- 8 available players at the time the user interface is created;
- 9 allowing the user to visually select at least one of the players to be a first member of
- 10 the theme;
- 11 allowing the user to add an additional one or more of the available players to the
- 12 theme, if desired;
- 13 configuring the theme with parameters pertaining to the players, wherein the theme
- 14 is activated at anytime or a specific time so that the players react in a
- 15 synchronized manner.

16 May 31, 2013 Application at p. 24-27.

17 1576. However, along with the continuation application containing the original claims  
18 from the second continuation-in-part application that were directed to certain aspects of Sonos’s  
19 “zone scene” technology, Sonos also filed a Preliminary Amendment that cancelled original claims  
20 1-20 and replaced them with new claims 21-40. An excerpt of this Preliminary Amendment  
21 including new claim 21 is shown below:

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23

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**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1-20 (cancelled)

21. (new) A multimedia controller including a processor, the controller configured to:  
display, via a user interface, a plurality of zones, each zone containing at least one zone player to playback multimedia content from a multimedia source;  
receive, via the user interface, a first user input, the first user input selecting a first zone of the plurality of zones and, wherein the first user input instructs the first zone of the plurality of zones to play a first multimedia content;  
receive, via the user interface, a second user input, the second user input identifying at least one additional zone of the plurality of zones to be grouped with the first zone into a zone group, such that the zone group will synchronously play the first multimedia content currently being played by the first zone;  
transmit, to a zone player of the zone group, a zone group configuration, wherein the zone group configuration causes the zone player of the zone group to configure the zones in the zone group to synchronize playback of the first multimedia content currently being played by the first zone; and  
display, on the user interface, an indication of which of the plurality of zones are part of the zone group.

May 31, 2013 Preliminary Amendment at p. 4.

1577. As shown above, unlike original claim 1, claim 21 (which ultimately issued as claim 1 of Sonos's '645 patent) did not recite a method for grouping "players" using a "theme" that could be "activated at anytime or a specific time so that the players react in a synchronized manner." Instead, claim 21 recited a "multimedia controller" configured to facilitate the creation of a "zone group" where the "zone group" was automatically activated at the time of creation when the "modified zone group configuration" is transmitted to a "zone player in the zone group," which "causes the zone player of the zone group to configure the zones in the zone group to synchronize

1 playback of the first multimedia content currently being played by the first zone.”

2 1578. On December 18, 2013, the Examiner issued an Office Action in which the  
3 Examiner explained that claim 21 was entitled to a priority date of April 1, 2004. December 18,  
4 2013 Office Action at 2-3. Likewise, on June 5, 2014, the Examiner issued another Office Action  
5 in which the Examiner again explained that claim 21 was entitled to a priority date of April 1,  
6 2004. June 5, 2014 Office Action at 2-3. In so doing, the Examiner determined that claim 21 did  
7 not cover the new subject matter related to Sonos’s “zone scene” technology that was added to the  
8 specification of Sonos’s ’645 patent as part of the second continuation-in-part application that was  
9 filed on February 21, 2008.

10 1579. In my opinion, the above-described prosecution history likewise confirms that  
11 claim 1 of Sonos’s ’645 patent is directed to functionality related to a Sonos ad-hoc “zone group”  
12 – not a “zone scene” as recited by the Asserted Claims of the ’966 Patent.

13 1580. Further, Dr. Schonfeld’s own analysis confirms that claim 1 of Sonos’s ’645 patent  
14 is directed to functionality related to a Sonos ad-hoc “zone group” – not a “zone scene” as recited  
15 by the Asserted Claims of the ’966 Patent.

16 1581. For example, at paragraphs 839-841 of his Opening Report regarding limitation 1.6  
17 of Asserted Claim 1 of the ’885 Patent, Dr. Schonfeld asserts that claim 1 of Sonos’s ’645 patent  
18 discloses, among other things, a “first zone scene comprising a first predefined grouping of zone  
19 players including at least the first zone player and a second zone player that are to be configured  
20 for synchronous playback of media when the first zone scene is invoked.” *See* Schonfeld Op.  
21 Report at ¶¶ 839-841. To support this assertion, Dr. Schonfeld states as follows:

22 Claim 1 of the ’645 patent discloses “transmit, to a zone player of the zone group  
23 via a packet network, a modified zone group configuration, wherein the modified  
24 zone group configuration causes the zone player of the zone group to configure the  
25 zones in the zone group to synchronize playback of the first multimedia content  
26 currently being played by the first zone.”

27 Although claim 1 of the ’645 patent is drafted from the perspective of the controller,  
28 the claim discloses a transmission from controller that is received by the zone  
player, as claimed. As described above, this transmission is received over a data  
network. The transmission includes an “indication” of a grouping of zone players,  
and those players are to be configured for synchronous playback of media when the

zone scene is invoked as disclosed in claim 1. As described above, the claimed embodiments disclosed in the '645 patent specification indicate that the claimed zone group in '645 patent claim 1 is a "zone scene" as claimed in the '885 patent. As described *supra*, the zone groups in the claimed embodiments of the '645 patent specification include characteristics of a "zone scene," such as saving and later "invoking" the group, and storing name and other parameter information with the zone scene. Furthermore, the '654 patent claim itself shows that the zone group is *later* invoked, like the claimed "zone scene," because that claim states that the players within the group the modified zone group configuration "causes the zone player of the zone group to *configure* the zones in the zone group to synchronize playback." The zone players are merely *configured* to playback in synchrony, but in contrast to the prior claim elements, which cover actions when the controller "instructs the first zone of the plurality of zones to play a first multimedia content," this is not playback of "invocation" of the claimed zone scene, it is merely the configuration of that zone scene. Accordingly, claim 1 of the '645 patent discloses a "zone scene" which is later invoked.

Schonfeld Op. Report at ¶¶ 840-841 (emphases in original).

1582. As acknowledged by Dr. Schonfeld, claim 1 of Sonos's '645 patent recites that the "modified zone group configuration causes the zone player of the zone group to configure the zones in the zone group to synchronize playback of the first multimedia content currently being played by the first zone." However, as explained above, this limitation that Dr. Schonfeld relies on actually confirms that claim 1 of Sonos's '645 patent describes an ad-hoc "zone group" that is automatically invoked at the time of creation for the entirety of its existence as opposed to a "zone scene," which requires a user-customized, pre-saved group of "zone players" that is able to exist in an inactive state while remaining available for selection by a user so that it can later be invoked on demand for synchronous playback, as required by the Asserted Claims of the '966 Patent. And Dr. Schonfeld did not identify any other language in claim 1 of Sonos's '645 patent that describes the characteristics of a "zone scene."

1583. Dr. Schonfeld's position to the contrary appears to be based primarily on the specification of Sonos's '645 patent, as well as an incorrect interpretation of the term "invoke." As explained above, with respect to Dr. Schonfeld's reliance on the specification of Sonos's '645 patent, such reliance is improper both legally and because the "zone scene" disclosure that he relies on was added to the specification as part of the second continuation-in-part application filed on February 21, 2008, but the claims of Sonos's '645 patent do not cover the embodiments set forth

1 in the added portions of the '645 specification, as the Examiner correctly determined during  
2 prosecution and as I explained above.

3 1584. With respect to his interpretation of the term “invoke,” Dr. Schonfeld ties the act of  
4 “invok[ing]” a “zone scene” comprising a user-customized, pre-saved group of “zone players” to  
5 the time when the group of “zone players” is actually caused to play back audio, but this is not  
6 how a POSITA would understand the term “invoke” in the context of the claim language and  
7 specification of the '966 Patent. Rather, a POSITA would understand that the act of “invok[ing]”  
8 a “zone scene” comprising a user-customized, pre-saved group of “zone players” refers to the point  
9 in time when the group of “zone players” is activated for synchronous playback such that the  
10 “zone players” enter a mode in which they are controlled and used as part of the group, which is  
11 distinct from the act of initiating playback on that group of “zone players” (although in some  
12 scenarios it is possible that playback could be automatically initiated as a result of the “zone scene”  
13 being invoked). *See, e.g.*, '407 Provisional at App'x A, p. 4 (explaining that when a “Zone Scene”  
14 is invoked at a time when “no music is playing in any Zone – then the zones will simply link in a  
15 group” without playing any music); 6/6/2022 Lambourne Dep. Tr. at 59:5-16 (inventor of the '885  
16 and '966 Patents testifying that a “zone scene” does not have to start actively playing audio “at  
17 that moment when the group is invoked”); D.I. 309 (the Court describing “standalone mode” as a  
18 mode in which a “zone player” “operate[s] individually” as contrasted with a mode in which the  
19 “zone player” is “being controlled as part of [a] group” and never mentioning active playback as  
20 a required aspect of “standalone mode”). And as explained previously, a Sonos ad-hoc “zone  
21 group” as claimed in Sonos's '645 patent is automatically invoked at the time of its creation and  
22 then only remains in existence for the temporary period of time during which it is activated, so  
23 there would never be a period of time during which a “zone group” was created and in existence  
24 but was in an inactive, uninvoked state such that a user is presented with an option to “request to  
25 invoke” the “zone group,” as required by the Asserted Claims of the '966 Patent.

26 1585. As another example, at paragraphs 843-846 of his Opening Report regarding  
27 limitation 1.7 of Asserted Claim 1 of the '885 Patent, Dr. Schonfeld asserts that claim 1 of Sonos's  
28 '645 patent discloses, among other things, a “second zone scene comprising a second predefined



1 grouping of zone players including at least the first zone player and a third zone player that are to  
2 be configured for synchronous playback of media when the second zone scene is invoked.” See  
3 Schonfeld Op. Report at ¶¶ 843-846. To support this assertion, Dr. Schonfeld states as follows:

4 Limitation 1.7 is similar to 1.6 and the analysis above is incorporated herein  
5 by reference.

6 Claim 1 of the ‘645 patent discloses “a plurality of zones, each zone  
7 containing at least one zone player.” A plurality of zones where each zones  
8 contains at least one zone player discloses the three claimed zone players of  
Limitation 1.7.

9 As already discussed with respect to Limitation 1.6, the zone player  
10 received an indication that it has been added to a zone scene. Further, as  
11 with Limitation 1.6, the limitation “that are to be configured for  
synchronous playback of media when the second zone scene is invoked” is  
likewise met.

12 It is also clear, as shown through the claimed embodiments discussed supra,  
13 that the zone players may be added to groups that overlap. As disclosed  
14 therein, the claimed embodiments show that “any combinations of zone  
15 players and an existing zone group may be grouped together,” regardless of  
16 whether those zone players are already grouped. E.g., supra, 2:4-20; 2:63-  
17 3:5 (“According to still another aspect of the present invention, a controlling  
18 device (also referred to herein as controller) is provided to facilitate a user  
to select any of the players in the system to form respective groups each of  
which is set up per a scene.”); 5:41-45 (“Two or more zone players may be  
grouped together to form a new zone group. Any combinations of zone  
players and an existing zone group may be grouped together.”).

19 Schonfeld Op. Report at ¶¶ 844-846.

20 1586. While Dr. Schonfeld suggests that claim 1 of Sonos’s ‘645 patent discloses a  
21 “second zone scene,” he fails to identify any claim language allegedly describing such a “second  
22 zone scene.” Instead, Dr. Schonfeld merely refers back to his discussion of limitation 1.6 of  
23 Asserted Claim 1 of the ‘885 Patent, where he alleges that the claimed “zone group” teaches the  
24 “first zone scene.” In so doing, Dr. Schonfeld acknowledges that claim 1 of Sonos’s ‘645 patent  
25 only discloses a single “zone group.” Thus, Dr. Schonfeld’s own analysis confirms that, even if  
26 the “zone group” of claim 1 of Sonos’s ‘645 patent were a “first zone scene” (it is not for all the  
27 reasons explained above), claim 1 of Sonos’s ‘645 patent would still not disclose a “second zone  
28 scene,” let alone a “second zone scene” that overlaps and co-exists with the “first zone scene” and



1 where both the “first zone scene” and the “second zone scene” are “display[ed]” at the same time  
2 in a manner that allows a user to select between them for purposes of requesting invocation, as  
3 required by the Asserted Claims of the ’966 Patent.

4 1587. Dr. Schonfeld’s position to the contrary appears to be based exclusively on the  
5 specification of Sonos’s ’645 patent. However, as explained above, Dr. Schonfeld’s reliance on  
6 the specification of Sonos’s ’645 patent is improper both legally and because the “zone scene”  
7 disclosure that he relies on was added to the specification as part of the second continuation-in-  
8 part application filed on February 21, 2008, but the claims of Sonos’s ’645 patent do not cover the  
9 embodiments set forth in the added portions of the ’645 specification, as the Examiner correctly  
10 determined during prosecution and as I explained above.

11 1588. As yet another example, at paragraphs 851-852 of his Opening Report regarding  
12 limitation 1.9 of Asserted Claim 1 of the ’885 Patent, Dr. Schonfeld asserts that claim 1 of Sonos’s  
13 ’645 patent discloses, among other things, a “zone scene” being “selected for invocation” and  
14 thereafter the transmission of an “instruction to operate in accordance” with the selected “zone  
15 scene.” *See* Schonfeld Op. Report at ¶¶ 851-852. To support this assertion, Dr. Schonfeld states  
16 as follows:

17 As discussed supra, claim 1 of the ’645 patent discloses that “the first user  
18 input instructs the first zone of the plurality of zones to play a first  
19 multimedia content.” This discloses selecting the zone scene for invocation,  
20 which is an instruction to play multimedia content in synchrony in one or  
21 more zone groups. As discussed supra, the instruction in the ’645 patent  
22 claims is given by a user to a controller, which is then transmitted to a  
23 playback devices, as claimed in the ’885 patent..

24 Schonfeld Op. Report at ¶ 852.

25 1589. While Dr. Schonfeld is correct that claim 1 of Sonos’s ’645 patent recites a “first  
26 user input selecting a first **zone** of the plurality of zones and, wherein the first user input instructs  
27 the first zone of the plurality of zones to play a first multimedia content,” this is not an input  
28 selecting the “**zone group**,” as Dr. Schonfeld suggests. Thus, Dr. Schonfeld’s own analysis  
confirms that, even if the “zone group” of claim 1 of Sonos’s ’645 patent were a “zone scene” (it  
is not for all the reasons explained above), claim 1 of Sonos’s ’645 patent would still not disclose

1 a user selection of a “zone scene” for purposes of requesting invocation, as required by the  
2 Asserted Claims of the ’966 Patent. Again, as explained above, an ad-hoc “zone group” like that  
3 claimed in Sonos’s ’645 patent is automatically activated at the time of creation for the entirety of  
4 its existence and thus cannot exist in an inactive state such that it could be selected for invocation.

5 1590. I also disagree with various other aspects of Dr. Schonfeld’s discussion at paragraph  
6 852 of his Opening Report. For example, Dr. Schonfeld again appears to rely on his interpretation  
7 of the term “invoke” that ties the act of “invok[ing]” a “zone scene” comprising a user-customized,  
8 pre-saved group of “zone players” to the time when the group of “zone players” is actually caused  
9 to play back audio, but this is incorrect for the reasons I explained above. As another example,  
10 Dr. Schonfeld states that “selecting the zone scene for invocation ... is an instruction to play  
11 multimedia content in synchrony in one or more zone groups.” To the extent I understand Dr.  
12 Schonfeld’s position here, I disagree. As recited in Asserted Claim 1 of the ’885 Patent, the  
13 “select[ion]” of a “zone scene” that is received by the “network device” is separate and distinct  
14 from the “instruction” that is transmitted from the “network device” to the “first zone player” *after*  
15 the “select[ion].”

16 1591. Finally, Dr. Schonfeld fails to sufficiently articulate how or why a POSITA would  
17 have found the missing “zone scene” limitations of the Asserted Claims of the ’966 Patent to be  
18 obvious in view of claim 1 of the Sonos’s ’645 patent.

19 1592. First, even if claim 1 of Sonos’s ’645 patent were to be modified in the various  
20 ways proposed by Dr. Schonfeld, such a hypothetical system still would not achieve either the  
21 specific player-side “zone scenes” functionality required by Asserted Claim 1 of the ’885 Patent  
22 or the specific controller-side “zone scenes” functionality required by the Asserted Claims of the  
23 ’966 Patent that Dr. Schonfeld failed to analyze.

24 1593. Second, Dr. Schonfeld’s proposed modifications to claim 1 of Sonos’s ’645 patent  
25 are all nothing more high-level suggestions, such as “permit[ing] overlapping group membership,”  
26 and Dr. Schonfeld has failed to provide any explanation as to how these proposed modifications  
27 to claim 1 of Sonos’s ’645 patent would have actually been implemented – let alone how the  
28 proposed modifications would have achieved either the specific player-side “zone scenes”

1 functionality required by Asserted Claim 1 of the '885 Patent or the specific controller-side “zone  
2 scenes” functionality required by the Asserted Claims of the '966 Patent that Dr. Schonfeld failed  
3 to analyze. Moreover, in my opinion, implementing Dr. Schonfeld’s high-level suggestions would  
4 have required substantial, non-obvious modifications to the ad-hoc “zone group” functionality of  
5 claim 1 of Sonos’s ’645 patent.

6 1594. Third, I disagree that a POSITA in 2005-06 would have been motivated to modify  
7 claim 1 of Sonos’s ’645 patent in any one of the ways proposed by Dr. Schonfeld – let alone all of  
8 the different ways proposed by Dr. Schonfeld. Indeed, like Sonos’s 2005 system, claim 1 of  
9 Sonos’s ’645 patent already included ad-hoc “zone group” functionality that allowed “zone players”  
10 to be grouped together on demand for synchronous playback, and that ad-hoc “zone group”  
11 functionality was being praised throughout the industry. *See, e.g.*, GOOG-SONOS-NDCA-00108095  
12 at 365 (disclosing that Sonos’s system in 2006 was “pure heaven” and touting that “[y]ou can perform  
13 some pretty sophisticated stunts using that remote, like directing different streams of music to different  
14 rooms, linking several rooms so that they all play the same music....”); SONOS-SVG2-00234176 at  
15 76-77 (Feb. 3, 2005 PC Magazine article stating Sonos’s ZP100 “is the first digital audio hub we can  
16 recommend without reservation. . . . It can play the same music throughout the house, perfectly  
17 synchronized. Even though that may seem drop-dead simple, other hubs don’t do it. And you can join  
18 multiple rooms to play the same music . . . on the fly.”); SONOS-SVG2-00227422 (March 22, 2005  
19 PC Magazine article stating the same); SONOS-SVG2-00234162 at 62-64 (Feb. 24, 2005 Wall Street  
20 Journal article stating “[t]he Sonos system is easily the best music-streaming product I have seen and  
21 tested,” and “[i]t’s the Lexus of the category” at least because “[t]he system works in multiple rooms  
22 of a home, allowing you to play . . . the same songs, in each room simultaneously . . . . you can group  
23 the ‘Zones,’ so several receive the same music simultaneously.”); SONOS-SVG2-00234165 (listing  
24 various “[a]wards, accolades and achievements” by Sonos in 2004-2006); SONOS-SVG2-00234171  
25 (same); SONOS-SVG2-00234181 (2005 Playlist Magazine article stating “[y]ou can control each  
26 ZonePlayer independently of the others, or you can sync all of them for full-house entertainment. The  
27 result? The music you want, in whatever rooms you want -- the whole-house-music thing done right .  
28 . . . Where the Sonos system stands out from similar systems is in its zone management. Using the

1 Controller's Zone menu, you can easily link zones to play the same music in sync . . . "); SONOS-  
2 SVG2-00234182 at 84 (Dec. 2005 LA Audio file article stating "[u]sing the Link Zone feature, users  
3 can link some or all of the listening zones to a single group. This is particularly useful when having a  
4 party or when one might be moving from one room to another within the house and would like to hear  
5 the same music."), at 86 ("Having seen so many options for distributing audio in today's homes, I can't  
6 think of a better all-around product than the Sonos Digital Music System."). Moreover, I have not seen  
7 any evidence suggesting that a POSITA in 2005-06 would have recognized any particular problem  
8 with Sonos's ad-hoc "zone group" functionality that would have motivated the POSITA to replace that  
9 ad-hoc "zone group" functionality with a different mechanism for grouping "zone players" –  
10 particularly when considering the positive feedback Sonos was receiving for its ad-hoc "zone group"  
11 functionality and the time, effort, and cost that would have been required to overhaul the grouping  
12 mechanism recited by claim 1 of Sonos's '645 patent.

13 1595. Nevertheless, in his Opening Report, Dr. Schonfeld offers several unsupported,  
14 conclusory theories as to why it a POSITA in 2005-06 would have allegedly found it obvious to  
15 modify claim 1 of Sonos's '645 patent in the various ways proposed by Dr. Schonfeld. However,  
16 in addition to the fact that Dr. Schonfeld failed to articulate any reasoning as to why a POSITA  
17 would have been motivated to modify claim 1 of Sonos's '645 patent to achieve the specific  
18 controller-side "zone scenes" functionality required by the Asserted Claims of the '966 Patent, I  
19 disagree with Dr. Schonfeld's theories for various reasons.

20 1596. For example, at paragraph 842 of his Opening Report, Dr. Schonfeld states the  
21 following with respect to limitation 1.6 of Asserted Claim 1 of the '885 Patent, which recites,  
22 among other things, "a first indication that the first zone player has been added to a first zone scene  
23 comprising a first predefined grouping of zone players including at least the first zone player and  
24 a second zone player that are to be configured for synchronous playback of media when the first  
25 zone scene is invoked":

26 To the extent this claim element isn't explicitly disclosed by claim 1 of the  
27 '645 patent, it is merely an obvious variation over the claim. It would have  
28 been obvious to name the zone group claimed in claim 1 of the '645 patent,  
thereby creating a "zone scene" because claim 1 of the '645 patent already

requires the user to be able to select a zone group, and that zone group must be identifiable in some way on the graphical user interface (e.g., by name). Likewise, claim 6 of the '645 patent discloses "wherein the indication of which of the plurality of zones are part of the zone group comprises a display, within a bounded graphic, of the plurality of zones that are part of the zone group." Accordingly, claim 6 discloses that there is an "indication" of which zones are part of the zone group and that this must appear "within a bounded graphic." To the extent this doesn't explicitly disclose a zone scene, which is clearly referenced by the graphic and indication of claim 6, it would have been obvious in view of claim 6 to include an identifier for the zone scene, such as a name.

Schonfeld Op. Report at ¶ 842. I disagree.

1597. As an initial matter, it is unclear if the first sentence of this paragraph refers to modifying or replacing that ad-hoc "zone group" functionality of claim 1 of Sonos's '645 patent with "zone scene" functionality or if it refers to modifying that ad-hoc "zone group" functionality of claim 1 of Sonos's '645 patent to provide a name for the "zone group." If the former, I disagree that such a modification or replacement would have been obvious to a POSITA in 2005-06 for the reasons explained above. If the latter, even if it were obvious to add a name to the claimed ad-hoc "zone group," this would not transform the "zone group" into a "zone scene," which requires a group of "zone players" that is user-customized, pre-saved, and able to exist in an inactive state while remaining available for selection by a user so that it can be later invoked on demand for synchronous playback.

1598. Moreover, I disagree with Dr. Schonfeld's assertion that it would have been obvious to allow a user to assign a custom name to the ad-hoc "zone group" because "claim 1 of the '645 patent already requires the user to be able to select a zone group, and that zone group must be identifiable in some way on the graphical user interface." In my opinion, while claim 1 of Sonos's '645 patent does recite a "second user input identifying at least one additional zone of the plurality of zones to be grouped with the first zone into a zone group" and thereafter "display[ing] ... an indication of which of the plurality of zones are part of the zone group," neither of these limitations related to selecting a "zone" to be part of the "zone group" and displaying an "indication" of the "zones that are part of the zone group" renders obvious the functionality of allowing a user to custom name the "zone group" itself.

1           1599. Further, I fail to see how claim 6 of Sonos's '645 patent supports Dr. Schonfeld's  
2 assertion that it would have been obvious to name to the ad-hoc "zone group" of claim 1 of Sonos's  
3 '645 patent. In my opinion, while claim 6 of Sonos's '645 patent does recite how the "zones that  
4 are part of the zone group" are "indicat[ed]" on the "multimedia controller" using a "display,  
5 within a bounded graphic," this limitation related to displaying an "indication" of the "zones that  
6 are part of the zone group" does not render obvious the functionality of allowing a user to custom  
7 name the "zone group" itself.

8           1600. Further yet, although unclear, to the extent Dr. Schonfeld is asserting that claim 6  
9 of Sonos's '645 patent discloses a "zone scene," I disagree. Again, claim 6 of Sonos's '645 patent  
10 describes how the "zones that are part of the zone group" are "indicat[ed]" on the "multimedia  
11 controller" using a "display, within a bounded graphic," but this does not disclose a "zone scene,"  
12 which requires a group of "zone players" that is user-customized, pre-saved, and able to exist in  
13 an inactive state while remaining available for selection by a user so that it can be later invoked on  
14 demand for synchronous playback.

15           1601. As another example, at paragraph 848 of his Opening Report, Dr. Schonfeld states  
16 the following with respect to limitation 1.7 of Asserted Claim 1 of the '885 Patent, which recites,  
17 among other things, "a second indication that the first zone player has been added to a second zone  
18 scene comprising a second predefined grouping of zone players including at least the first zone  
19 player and a third zone player that are to be configured for synchronous playback of media when  
20 the second zone scene is invoked, wherein the second zone player is different than the third zone  
21 player":

22           To the extent this claim element isn't explicitly disclosed by claim 1 of the  
23 '645 patent, it is merely an obvious variation over the claim. It would have  
24 been obvious to permit overlapping group membership given that the claim  
25 makes no restriction on the existing group membership of a zone player  
26 before it is added to the second group (*e.g.*, "identifying at least one  
27 additional zone of the plurality of zones to be grouped with the first zone  
28 into a zone group"). Further, allowing overlapping group membership for  
zone players is an obvious design choice given that there are merely two  
options—either allow overlapping groups or do not allow overlapping  
groups. Given that the claimed zone players are grouped for later invocation  
and playback, it is consistent with the purpose of the claims and the  
motivation of a person of skill in the art to permit overlapping group

membership of the zone players.

Schonfeld Op. Report at ¶ 848. I disagree.

1602. As an initial matter, even if Dr. Schonfeld's proposed modification to "permit overlapping group membership" were made, this would still not meet all of the requirements of limitation 1.7 of Asserted Claim 1 of the '885 Patent or all of the requirements of, for example, limitations 1.7 and 1.8 of claim 1 of the '966 Patent. For instance, when read in light of limitation 1.4 of claim 1 of the '966 Patent, limitation 1.7 of claim 1 of the '966 Patent requires the "computing device" to "receiv[e] [the] second request to create [the] second zone scene" at a time when the "first zone player" is "operating in a standalone mode," which means that the created "first zone scene" must be in an inactive state at the time that this functionality is carried out (otherwise, the "first zone player" could not be in "standalone mode"). As another example, when read in light of limitation 1.9 of claim 1 of the '966 Patent, limitation 1.8 of claim 1 of the '966 Patent requires the "computing device" must carry out the claimed actions with respect to a "second zone scene" that includes at least one common "zone player" with the "first zone scene" (i.e., the claimed "first zone player") without modifying or destroying the "first zone scene" that was created, such that the overlapping "first zone scene" and "second zone scene" can thereafter both be "display[ed]" to a user for selection. Thus, even if one were to modify claim 1 of Sonos's '645 patent to "permit overlapping group membership" as Dr. Schonfeld proposes, the "multimedia controller" of claim 1 of Sonos's '645 patent would still not have the "zone scenes" capability that is required by the Asserted Claims of the '966 Patent.

1603. Further, I disagree with Dr. Schonfeld's suggestion that this would have simply been matter of whether or not to "permit overlapping group membership" – the "zone group" functionality of claim 1 of Sonos's '645 patent is a distinctly different type of grouping technology that would not even allow for "overlapping group membership" because "zone groups" are temporary, ad-hoc groups that are automatically activated at the time they are created for the entirety of their existence and thus it was not possible to create a new ad-hoc "zone group" comprising a "zone player" that was already a member of another preexisting "zone group" without first modifying or destroying that preexisting "zone group." As such, it would not have been



possible to simply modify the grouping technology of claim 1 of Sonos's '645 patent to "permit overlapping group membership" – a completely different grouping technology would have been required.

1604. Further yet, I disagree with Dr. Schonfeld's assertion that "allowing overlapping group membership for zone players is an obvious design choice given that there are merely two options—either allow overlapping groups or do not allow overlapping groups." Again, the "zone group" functionality of claim 1 of Sonos's '645 patent is a distinctly different type of grouping technology that would not even allow for "overlapping group membership" because "zone groups" are temporary, ad-hoc groups that are automatically activated at the time they are created for the entirety of their existence and thus it was not possible to create a new ad-hoc "zone group" comprising a "zone player" that was already a member of another preexisting "zone group" without first modifying or destroying that preexisting "zone group." For this reason, a POSITA in 2005-06 would not have even considered "overlapping group membership" as a possible option, nor would a POSITA in 2005-06 have been motivated to change the grouping technology recited by claim 1 of Sonos's '645 patent to implement this change, which would require a completely different grouping technology.

1605. As yet another example, for each of limitations 1.8, 1.9, and 1.10 of Asserted Claim 1 of the '885 Patent, Dr. Schonfeld asserts that if the limitation is not disclosed by claim 1 of Sonos's '645 patent, then the limitation would have been obvious. *See* Schonfeld Op. Report at ¶¶ 849, 851, 853. However, Dr. Schonfeld provides no explanation as to why these limitations would have been obvious or how claim 1 of Sonos's '645 patent would have been modified to include the functionality required by these limitations.

## **XVI. SECONDARY CONSIDERATIONS OF NON-OBVIOUSNESS**

1606. Dr. Schonfeld opines that he "has not seen any 'secondary considerations' that may be used to demonstrate non-obviousness." Schonfeld Op. Report at ¶ 1112. I disagree.

1607. Based on my review of Dr. Schonfeld's report and Sonos's Response to Google's Interrogatory Nos. 4 and 13, (which I hereby incorporate by reference), as well as my review of the evidence, it is my opinion that there exists ample evidence of secondary considerations that

1 the '966 Patent. The new functionality is also not commercially acceptable for the same reasons  
2 as already discussed.

3 To the extent Dr. Schonfeld expands on his opinions concerning NIA 1 or the new software  
4 update, I reserve my right to respond

5 **XVIII. DEMONSTRATIVES**


6 1656. To help assist in my testimony at trial, I have prepared a number of demonstratives  
7 that are attached hereto as **Exhibit 5**. These demonstratives are exemplary and I reserve the right  
8 to create additional demonstratives and/or to modify the demonstratives in **Exhibit 5** based on the  
9 material in this report. For example, I reserve the right to create additional demonstratives and/or  
10 to modify the demonstratives in **Exhibit 5** based on the images I included in this report as well as  
11 the evidence cited in this report. I also incorporate by reference the demonstratives I prepared for  
12 my opening report.

13 1657. I have also reviewed Sonos's Technology Tutorial that provides an overview of the  
14 '885 and '966 Patents, which I understand was submitted to the court in February 2022. I  
15 incorporate by reference herein Sonos's Technology Tutorial and expressly reserve the right to use  
16 the Technology Tutorial in whole or in part as a demonstrative to assist in my testimony.  
17 Additionally, I have attached a pdf version of Sonos's Technology Tutorial hereto as **Exhibit 6**  
18 and expressly reserve the right to use the images contained therein as demonstratives to assist in  
19 my testimony.

20 **XIX. RESERVATION OF RIGHT**

21 1658. I reserve the right to further expound on my rebuttal opinions, including the validity  
22 of the Asserted Claims of the '966 Patent, in subsequent declarations, reports, and/or at trial.

23  
24  
25 Dated: January 13, 2023

26  
27  
28  
  
By: \_\_\_\_\_  
Kevin C. Almeroth